LIBRARY OF CONGRESS

UNITED STATES COPYRIGHT ROYALTY JUDGES

The Library of Congress

```
-------------------------------X
IN THE MATTER OF:               )   Docket No.
                                )   2012-6 CRB CD
DISTRIBUTION OF THE 2004-2009   )   (2004-2009)
CABLE ROYALTY FUNDS             )   (Phase II)

-------------------------------X
IN THE MATTER OF:               )   Docket No.
                                )   2012-7 CRB SD
DISTRIBUTION OF THE 1999-2009   )   (1999-2009)
CABLE ROYALTY FUNDS             )   (Phase II)

-------------------------------X
```

CONDENSED TRANSCRIPT WITH KEYWORD INDEX

Pages: 267 through 493

Place: Washington, D.C.

Date: April 10, 2018

267

```
 1            UNITED STATES COPYRIGHT ROYALTY JUDGES
 2                  The Library of Congress
 3                     Washington, D.C.
 4       --------------------------------X
         IN THE MATTER OF:          )  Docket No.
 5                                   )  2012-6 CRB CD
         DISTRIBUTION OF THE 2004-2009 )  (2004-2009)
 6       CABLE ROYALTY FUNDS        )  (Phase II)
 7       --------------------------------X
         IN THE MATTER OF:          )  Docket No.
 8                                   )  2012-7 CRB SD
         DISTRIBUTION OF THE 1999-2009 )  (1999-2009)
 9       CABLE ROYALTY FUNDS        )  (Phase II)
10       --------------------------------X
11       BEFORE:    THE HONORABLE SUZANNE BARNETT
12                  THE HONORABLE JESSE M. FEDER
13                  THE HONORABLE DAVID R. STRICKLER
14
15                  Library of Congress
16                   Madison Building
17              101 Independence Avenue, S.E.
18                    Washington, D.C.
19                     April 10, 2018
20
21                     9:33 a.m.
22                     VOLUME II
23
24       Reported by:  Karen Brynteson, RMR, CRR, FAPR
25
```

269

```
 1       APPEARANCES (Continued):
 2       On behalf of Settling Devotional Claimants:
 3              MATTHEW J. MacLEAN, ESQ.
 4              MICHAEL A. WARLEY, ESQ.
 5              JESSICA T. NYMAN, ESQ.
 6              Pillsbury Winthrop Shaw Pittman LLP
 7              1200 Seventeenth Street, N.W.
 8              Washington, D.C. 20036
 9              202-663-8183
10
11       ALSO PRESENT:
12              RAUL GALAZ
13
14
15
16
17
18
19
20
21
22
23
24
25
```

268

```
 1       A P P E A R A N C E S:
 2       On behalf of Independent Producers Group:
 3              BRIAN D. BOYDSTON, ESQ.
 4              Pick & Boydston, LLP
 5              10786 Le Conte Avenue
 6              Los Angeles, CA 90024
 7              213-624-1996
 8
 9       On behalf of MPAA and Program Suppliers:
10              GREGORY O. OLANIRAN, ESQ.
11              LUCY HOLMES PLOVNICK, ESQ.
12              ALESHA M. DOMINIQUE, ESQ.
13              DIMA BUDRON, ESQ.
14              Mitchell Silberberg & Knupp LLP
15              1818 N Street, N.W., 8th Floor
16              Washington, D.C. 20036
17              202-355-7917
18
19       On behalf of Settling Devotional Claimants:
20              ARNOLD P. LUTZKER, ESQ.
21              Lutzker & Lutzker LLP
22              1233 20th Street, N.W., Suite 703
23              Washington, D.C. 20036
24              202-408-7600
25
```

270

```
 1              P R O C E E D I N G S
 2                   (9:33 a.m.)
 3         JUDGE BARNETT:  Good morning.  Please
 4    be seated.  You might notice that we're a man
 5    down this morning.
 6         We anticipate that Judge Feder will be
 7    in.  He does have some -- a family emergency
 8    and he will -- we're hoping we can finish the
 9    testimony today so that he can take care of
10    that, but he is planning to be here.
11         We did think, though, that we could --
12    in his absence, we could go ahead and give you
13    the ruling on the -- on Mr. Boydston's motion
14    at the end of the day yesterday regarding
15    Mr. Sanders' testimony.  So I've asked Judge
16    Strickler to deliver the ruling of the Judges.
17         JUDGE STRICKLER:  Thank you, Judge
18    Barnett.  Good morning.
19         The Judges have considered IPG's oral
20    motion to strike made yesterday regarding
21    several sentences within the written direct
22    testimony of -- of John Sanders.  The Judges
23    deny that motion.
24         More particularly, we further
25    considered those sentences raised by that
```

271

1 motion that were also the subject of an initial
2 ruling yesterday, as well as those sentences
3 upon which the Judges did not initially rule
4 yesterday. And the present ruling covers and
5 reconsiders those tentative rulings from
6 yesterday.
7   The sentences in question -- and I'm
8 not going to read them chapter and verse again
9 because they are on the record and they were
10 set forth in pages 17 through 21 of
11 Mr. Sanders' written direct testimony,
12 Exhibit 7001.
13   IPG's motion is premised upon the
14 assertion that in these sentences, Mr. Sanders
15 expresses opinions beyond the scope of his
16 expertise. As the colloquy between the bench
17 and counsel yesterday made clear, Mr. Sanders
18 was qualified as an expert in the field of
19 valuation of media interests, including those
20 related to television interests.
21   And then there followed a voir dire
22 examination of Mr. Sanders by IPG's counsel,
23 and IPG objected thereafter to the
24 qualification of Mr. Sanders as an expert
25 witness in this proceeding on the grounds that

272

1 he did not have expertise in a narrower subject
2 of valuing broadcast stations and programs
3 distantly retransmitted on cable systems.
4   As we pointed out yesterday in that
5 colloquy, the SDC successfully opposed that
6 motion by arguing that the SDC was not seeking
7 to qualify Mr. Sanders as an expert in that
8 more narrow subject matter area. Rather, the
9 SDC noted that it was offering a different
10 witness, Ms. Toby Berlin, and offering her
11 testimony in that regard.
12   And the -- consequently, the motion to
13 preclude Mr. Sanders from testifying was
14 denied. That's not changed or subject to what
15 we're saying this morning.
16   The sentences at issue at pages 17 to
17 21 of Mr. Sanders' written direct testimony on
18 the present motion to strike relate to
19 Mr. Sanders' opinion that his general
20 expertise, and I emphasize general expertise,
21 regarding media valuations applies specifically
22 to the valuation issues in this proceeding.
23   For example, at page 17 -- while I
24 won't read all of the sentences, this is
25 perhaps emblematic. For example at page 17,

273

1 Mr. Sanders testifies, "In my opinion, where
2 programs are homogenous" -- perhaps that should
3 be homogeneous, but reasonable minds may
4 differ -- "the most salient factor to
5 distinguish them in terms of subscribership is
6 the size of the viewing audience. A religious
7 program with a larger audience is more likely
8 to attract and retain more subscribers for the
9 cable system operator, and is therefore of
10 proportionately higher value. Nielsen ratings
11 data is the currency of the broadcast,
12 satellite and cable industries, and it is
13 generally" -- I repeat, he said generally --
14 "regarded as the most reliable available
15 measure of audience size."
16   Mr. Sanders' opinion in that regard is
17 general in nature by his own very words, and
18 he's applying or recommending that we apply his
19 general expertise to the specific issue at
20 hand, the relative market value of the SDC and
21 IPG Devotional programming. That is not
22 objectionable to the Judges.
23   The Judges need to determine how to
24 establish relative market value in this
25 context, and Mr. Sanders' general opinion as to

274

1 valuation bears on this issue. And, thus, his
2 testimony is relevant and competent in that
3 context.
4   Moreover, the Judges need to determine
5 relative market value potentially, arguably in
6 the context of a -- of a hypothetical
7 marketplace. And to the extent we need to --
8 to envision and apply a hypothetical
9 marketplace, Mr. Sanders' testimony as to what
10 goes on in other aspects of other potentially
11 analogous markets is relevant and pertinent to
12 our inquiry and, therefore, it's of assistance.
13   Now, of course, what weight we
14 ultimately give to Mr. Sanders' testimony, his
15 attempt to apply his general knowledge and
16 general expertise to the specifics here, is
17 something that will ultimately need to be
18 determined, and we're not opining one way or
19 the other, obviously, in connection with this
20 motion.
21   We will point out, finally, though,
22 that to the extent that Mr. Sanders testifies
23 that he endorses or -- or agrees with any other
24 expert witness' testimony such as his specific
25 endorsement of Dr. Erdem's approach or his

275

1   echoing of Ms. Berlin's testimony, the Judges
2   find that testimony to not be of any
3   assistance. It's gratuitous and in the nature
4   of surplusage. It's not his expertise; it's
5   the expertise of others. And how he -- how he
6   characterizes that expertise and those
7   opinions, I should say, is -- is not something
8   that we are going to give any weight.
9   So for those reasons, the -- the
10 motion to strike those particular sentences in
11 pages 17 to 21 of Mr. Sanders' written direct
12 testimony is denied.
13   JUDGE BARNETT: Ms. Plovnick, do you
14 want to wait until Judge Feder is here or is
15 there some housekeeping we can take care of?
16   MS. PLOVNICK: I have some -- a couple
17 of housekeeping matters, Your Honor, which I'm
18 sure that you two Judges can handle.
19   JUDGE BARNETT: Don't be overly
20 confident.
21   MS. PLOVNICK: I'm very sure. So MPAA
22 Exhibit 8000 is the written direct testimony of
23 Jonda Martin. And the parties indicated to
24 MPAA that they have no cross-examination of
25 Ms. Martin and have agreed to the admission of

276

1   her testimony on the papers. And so I would
2   like to move the admission of MPAA Exhibit 8000
3   at this time.
4   MR. BOYDSTON: No objection.
5   JUDGE BARNETT: Exhibit 8000 is
6   admitted.
7   (Exhibit Number 8000 was marked and
8   received into evidence.)
9   MS. PLOVNICK: I also would like to
10 move the admission of MPAA Exhibits 8004
11 through 8014 inclusive, which is the designated
12 prior testimony of MPAA witnesses Jane
13 Saunders, Marsha Kessler, and Paul Lindstrom
14 from the 2000 through 2003 Cable Phase II
15 proceeding, which was included as a part of our
16 written direct statement, and we would like to
17 move for its admission pursuant to 351.4(b)(2)
18 of the regulations at this time.
19   JUDGE BARNETT: And that was 8004
20 through 8014 inclusive?
21   MS. PLOVNICK: 8004 through 8014
22 inclusive, Your Honor.
23   JUDGE BARNETT: Okay. Thank you.
24   MR. BOYDSTON: One moment, Your Honor.
25 I'm just reviewing those.

277

1   JUDGE BARNETT: Sure. Mr. MacLean?
2   MR. MacLEAN: No objection, Your
3   Honor.
4   JUDGE BARNETT: Okay.
5   MR. BOYDSTON: Your Honor, we have no
6   objection except for 8011 is rebuttal testimony
7   by Marsha Kessler. I don't -- it seems
8   surplusage at this point since there's nothing
9   to rebut.
10   MS. PLOVNICK: Well, Your Honor, the
11 rule requires us to designate the direct,
12 cross, and redirect examination. I think it
13 says also the complete testimony of that
14 witness in the prior proceeding must be
15 designated. And that is why we included that
16 portion of Ms. Kessler's testimony. It's for
17 the sake of the rule on completeness.
18   So we think that the full submission
19 satisfies the regulation, and we would move to
20 still include 8011 as an admitted exhibit.
21   MR. BOYDSTON: Well, I think that's
22 only for an attachment. And this isn't an
23 attachment. This is a separate standalone
24 document that's rebuttal.
25   JUDGE BARNETT: Well, that objection

278

1   is overruled. 8004 through 8014 inclusive are
2   admitted.
3   (Exhibit Numbers 8004 through 8014
4   were marked and received into evidence.)
5   MS. PLOVNICK: Thank you, Your Honor.
6   And just one last housekeeping matter.
7   Exhibit 8003 and then also 8015 through 8019
8   inclusive, those were part of MPAA's written
9   rebuttal statement in this proceeding, and
10 given the events that have transpired, we will
11 not be offering those into evidence, and they
12 are withdrawn.
13   JUDGE BARNETT: Could you give me the
14 numbers again, please?
15   MS. PLOVNICK: Sure. It's
16 Exhibit 8003 and then 8015 through 8019
17 inclusive.
18   JUDGE BARNETT: Thank you very much.
19 Those then will be withdrawn.
20   (Exhibits 8003 and 8015, 8016, 8017,
21 8018, and 8019 were withdrawn from evidence.)
22   MS. PLOVNICK: Thank you, Your Honor.
23 That's all my housekeeping matters.
24   Mr. Lindstrom is here, so whenever
25 you're ready.

279

1   JUDGE STRICKLER: I have a question
2 also in terms of housekeeping.
3   What is the likelihood that we can
4 finish the proceeding today, especially in
5 light of one of the Judges' personal needs or
6 family needs?
7   MS. PLOVNICK: Our witnesses are both
8 available today, Your Honor.
9   MR. BOYDSTON: And I'm certainly
10 amenable. I think that, you know, there's a
11 decent chance. I guess it may come down to how
12 long closing statements are, but it would seem
13 to me that we should be able to.
14   JUDGE BARNETT: Well, if -- Mr.
15 MacLean?
16   MR. MacLEAN: I just wanted to point
17 out, Your Honor, that under the procedural
18 order that you issued, closing statements are
19 to follow submission of findings of fact and
20 conclusions of law, to the extent that that
21 informs the time period today.
22   I believe if everybody stays within
23 their time estimates for the examination of the
24 witnesses, I think there's no question that we
25 would finish today.

280

1   JUDGE BARNETT: Okay. Thank you.
2   JUDGE STRICKLER: Who are the
3 witnesses today, Dr. Gray and who else?
4   MS. PLOVNICK: Mr. Lindstrom,
5 Paul Lindstrom --
6   JUDGE STRICKLER: Mr. Lindstrom.
7   MS. PLOVNICK: -- and Dr. Jeffrey
8 Gray.
9   JUDGE BARNETT: Mr. Boydston, we do
10 delay closings until you, all of you, have had
11 an opportunity to distill your thoughts in
12 these proposed findings and conclusions. We
13 find it makes the closing arguments more
14 concise.
15   Realizing that you have to travel
16 across country, I will offer the opportunity on
17 that day, whatever that day turns out to be,
18 you may attend by phone, if that is preferable.
19   MR. BOYDSTON: Thank you, Your Honor.
20   JUDGE BARNETT: It's just closing
21 argument. There is no back and forth on it.
22 So...
23   Counsel, if it is acceptable, since
24 we're starting a little bit late this morning,
25 we will forgo the morning recess and perhaps

281

1 have a shortened lunch break. Obviously, doing
2 everything we can to be sure Judge Feder's
3 requirements are met. Okay. Thank you.
4   So we will let you know when he is
5 here. I think it's safe to say 15 minutes, but
6 if you're back sooner and he's here, we'll
7 start sooner. Thank you.
8   (A recess was taken at 9:45 a.m.,
9 after which the trial resumed at 10:19 a.m.)
10   JUDGE BARNETT: Good morning. All but
11 the witness please be seated, and the examining
12 counsel.
13   MS. PLOVNICK: Thank you, Your Honor.
14 Whereupon--
15   PAUL LINDSTROM,
16 having been first duly sworn, was examined and
17 testified as follows:
18   JUDGE BARNETT: Please be seated.
19   MS. PLOVNICK: Thank you, Your Honor.
20   DIRECT EXAMINATION
21 BY MS. PLOVNICK:
22   Q.   Good morning.
23   A.   Good morning.
24   Q.   For the record, my name is Lucy
25 Plovnick. Would you please state your name and

282

1 spell it for the record.
2   A.   It's Paul Lindstrom.
3   Q.   And --
4   A.   Hold on.
5   Q.   Sorry.
6   A.   L-i-n-d-s-t-r-o-m.
7   Q.   Thank you, Mr. Lindstrom.
8   What's your educational background?
9   A.   I have a Bachelor's degree from NYU.
10   Q.   And where have you worked?
11   A.   I've worked at Nielsen most of my
12 career. It -- just about 39 years, until I
13 retired this past summer.
14   Q.   And what does Nielsen do?
15   A.   Nielsen is a research firm. They
16 specialize in marketing and media research, and
17 they do work both globally and domestically.
18   Q.   And what position did you hold at
19 Nielsen?
20   A.   I worked in a position called -- it
21 was an SVP, senior vice president, of a group
22 called Strategic Media Research. That group
23 handled custom research and custom analysis for
24 the media sides of the business.
25   And also I should note as part of this

283

1   that I am testifying here with the full
2   cooperation of Nielsen in support. So it's
3   really under their auspices as well.
4   Q.   Thank you, Mr. Lindstrom.
5   What were your responsibilities within
6   the group that you were the SVP of?
7   A.   I was really responsible for the
8   products that were sold through that group from
9   top to bottom. So I worked on everything from
10 dealing with the clients initially in order to
11 discuss what their issues were and to figure
12 out the proper types of methodologies. I would
13 have been involved with the sample design, the
14 sample size aspects, the development of the
15 calculations, questionnaire design, you know,
16 ultimately the report tabulations.
17   And I did that for a wide range of
18 media clients, from cable networks, cable
19 systems, broadcast stations, mobile device
20 makers, satellite dish companies, cinema
21 services, place-based networks, and so on.
22   So it was a very -- the Internet,
23 geez, how could we forget the Internet -- but
24 forget -- you know, covering a very, very wide
25 range of groups and a wide range of types of

284

1   services.
2   I did programming research. I did
3   marketing research for those groups, ad sales
4   research, and audience sizing-type work. So it
5   was almost any type of media-related custom
6   research or custom analysis I was involved
7   with.
8   Q.   Now, can you please explain -- you
9   just mentioned the terms "custom research" and
10 "custom analysis." What is custom research;
11 what is custom analysis?
12   A.   They're actually two very different
13 things, even though they're both custom.
14 Custom research is usually done for a single
15 client, not always, but the main
16 differentiation with it is that you are
17 creating new databases. So you're going out
18 and doing surveys or data collection of some
19 kind to gather new information that you're
20 producing studies from.
21   And custom analysis is where you're
22 going into an existing database, you're looking
23 at new ways of examining that data and
24 analyzing it, but the real key is custom
25 analysis is an existing database; custom

285

1   research, you're developing a new -- new set of
2   information for a new database.
3   Q.   Now, when you were discussing the
4   different kinds of experience you had at
5   Nielsen, would that experience fall under the
6   umbrella of custom research and custom
7   analysis?
8   A.   Yes, it would.
9   Q.   Now, in the course of your experience,
10 to what extent has statistics factored into
11 your work?
12   A.   It would be impossible to be in a
13 research design position without having
14 statistics play into it to a great extent.
15 It's a prime determinant of how you would go
16 about designing a methodology and producing a
17 study to make sure you were going to get the
18 types of answers that you wanted and that they
19 could be interpreted correctly.
20   Q.   So when you were talking before, you
21 mentioned some of the clients you did this work
22 for at Nielsen. Can you please just explain
23 what type of clients did you do custom research
24 and custom analysis for while at Nielsen?
25   A.   Again, a wide range of groups and

286

1   clients, cable systems, cable networks,
2   broadcast networks, broadcast stations,
3   agencies, advertisers, and then going into a
4   lot of the new media such as Internet
5   providers, place-based networks, et cetera.
6   Q.   What about satellite carriers?
7   A.   I've done a lot of work with satellite
8   carriers. In fact, I did the -- I know it's
9   dating myself, but I did the prelaunch research
10 for Hughes Communications when they were
11 getting set to determine whether or not to
12 launch DirecTV.
13   Q.   So -- and why would a cable system or
14 a satellite carrier require you to do audience
15 measurement work?
16   A.   There's a lot of reasons. You know,
17 it's tough to be in the television business
18 without trying to understand how your product
19 is being used. So to that extent, there's a
20 lot of knowledge that's required on how to
21 appeal to consumers, how to market to them, and
22 a lot of that revolves around what it is that
23 they're watching because that's ultimately the
24 product that's being sold.
25   The other part of it is that there are

287

1   multiple revenue streams for cable systems, one
2   of which is obviously subscription fees that
3   come in, but the second part is ad revenue.
4   And so they're very interested in audience
5   metrics in order to be able to sell advertising
6   on their systems.
7   Q.   Have you previously testified in any
8   distribution proceedings in the past?
9   A.   Yes, I have. I've been involved with,
10   I think, virtually all of them, going back
11   to -- I believe it was 1978. But I have
12   participated quite frequently.
13   Q.   Have you been qualified in those
14   proceedings as an expert witness?
15   A.   Yes, I have.
16   MS. PLOVNICK: Your Honors, based on
17   Mr. Lindstrom's years of experience in the
18   field, I offer Mr. Lindstrom as an expert in
19   the field of market research with an emphasis
20   on television and cable audience measurement.
21   MR. BOYDSTON: May I briefly voir
22   dire?
23   JUDGE BARNETT: You may.
24   VOIR DIRE EXAMINATION
25   BY MR. BOYDSTON:

289

1   Q.   Would you be making any other sort of
2   observations based upon statistics?
3   A.   Again, it's a very broad question.
4   I'm not sure how to -- how to answer that. I
5   am here primarily to answer what was done for
6   the Nielsen analyses and what they consist of
7   and to help people understand what is going on
8   with those statistics, which is why it's
9   difficult to be exactly sure, you know, what
10   you're trying to ask.
11   Q.   You're familiar with the other expert
12   that's going to be testifying here, Dr. Gray?
13   A.   Yes, I am.
14   Q.   In an attempt to try to define these
15   roles, is it fair to say that you're going to
16   testify about information coming from Nielsen,
17   which includes statistics, but that Dr. Gray
18   will provide analysis of what those statistics
19   mean?
20   A.   Yes. We would be supplying data to
21   Dr. Gray and Dr. Gray would be speaking to the
22   analysis that he produced.
23   MR. BOYDSTON: Your Honor, we have no
24   objection to Mr. Lindstrom being designated as
25   an expert in the area that I think we've

288

1   Q.   Mr. Lindstrom, my name is Brian
2   Boydston. I represent Worldwide -- excuse me
3   -- Independent Producers Group. With regard to
4   your area of expertise, my understanding is
5   that you do not put yourself out as a
6   statistician; is that correct?
7   A.   That is correct.
8   Q.   And so you will not be offering expert
9   testimony on statistical analysis; is that
10   correct?
11   A.   I have to rephrase that. If you
12   wouldn't mind.
13   Q.   Well, will you be offering expert
14   testimony as a statistician?
15   A.   I will be offering expert testimony
16   from a statistical user who has been involved
17   with it from a design standpoint. So the
18   answer in part is yes, although I -- I think
19   it's still a bit unclear as to where you're
20   going.
21   Q.   Will you be testifying as to the
22   significance of particular statistics and
23   making predictions based upon those statistics?
24   A.   I won't be making predictions based
25   upon those statistics.

290

1   defined by these questions.
2   JUDGE BARNETT: Ms. Plovnick, will you
3   state the areas again that you're asking for?
4   MS. PLOVNICK: Sure. Your Honor, so
5   I'm asking that Mr. Lindstrom be qualified as
6   an expert in the field of market research, with
7   an emphasis on television and cable audience
8   measurement. And it's the same offer that has
9   been made in past proceedings.
10   JUDGE BARNETT: And Mr. Lindstrom is
11   so qualified.
12   MS. PLOVNICK: Thank you.
13   DIRECT EXAMINATION -- RESUMED
14   BY MS. PLOVNICK:
15   Q.   Mr. Lindstrom, what were you and
16   Nielsen asked to do for this proceeding?
17   A.   For this proceeding, we produced three
18   types of data or supplied three types of data.
19   The first was an analysis of diaries from the
20   period 2000 to 2003 done separately for cable
21   and for satellite.
22   The second piece was a custom analysis
23   of the metered sample. That was for the
24   periods 2008-2009. And that was also done
25   separately for cable and for satellite.

291

1   And, lastly, we supplied the
2 syndicated reports, which was the standard
3 reporting that's done on a local market basis
4 for the period of 2000 through 2009.
5   Q.   When you say the standard report, is
6 that what's known as local ratings data?
7   A.   That is the local ratings reports.
8   Q.   Did you prepare written testimony
9 summarizing the work that Nielsen did for this
10 proceeding?
11   A.   Yes, I did.
12   Q.   Mr. Lindstrom, you should have a black
13 binder with an orange cover in front of you.
14 In fact, you have two, but I'm going to ask you
15 to look at the first one.
16   Please turn to what has been premarked
17 as Exhibit 8001.
18   A.   Okay.
19   Q.   What is the title of Exhibit 8001?
20   A.   Testimony of Paul V. Lindstrom.
21   Q.   And is this the written testimony you
22 prepared for this proceeding?
23   A.   Yes, it is.
24   Q.   Do you have any corrections to your
25 testimony?

292

1   A.   The only one being that, as I noted
2 earlier, I have since retired from Nielsen in
3 June of 2017.
4   Q.   Thank you. And with this correction
5 that you just made, do you declare your
6 testimony to be true and correct?
7   A.   Yes, I do.
8   MS. PLOVNICK: I move to admit
9 Exhibit 8001.
10   MR. BOYDSTON: No objection.
11   JUDGE BARNETT: 8001 is admitted.
12   MS. NYMAN: No objection.
13   JUDGE BARNETT: Thank you.
14   (Exhibit Number 8001 was marked and
15 received into evidence.)
16   MS. PLOVNICK: All right. Thank you.
17 BY MS. PLOVNICK:
18   Q.   Mr. Lindstrom, you stated earlier that
19 Nielsen provided three types of data for this
20 proceeding. And you described two of these
21 sets of data as custom analysis. And I think
22 we already described what a custom analysis is.
23   So let's just talk about the first
24 type of custom analysis, which was a diary
25 analysis. What's a Nielsen diary?

293

1   A.   A Nielsen diary is a small booklet.
2 It's about this size (indicating). It covers a
3 seven-day period of time. Listed within that
4 booklet are individual quarter-hours. So you
5 would have Monday, 7 to 7:15 in a line in
6 there.
7   The household would be sent a diary
8 for each set within the household, and they
9 would be indicating within that diary on a
10 quarter-hour basis what program was being
11 viewed, what channel, and what the call letters
12 were, all as a way of being able to correctly
13 identify that viewing, and then to indicate
14 which people within the household or any
15 guest's view in a separate section within it.
16 But it -- it covers, as I said, individual
17 quarter-hours for a seven-day period of time.
18   Q.   And who does Nielsen give diaries to?
19   A.   The diaries are sent out on a random
20 basis. There's a random sampling methodology
21 that goes on behind that. And those diaries
22 are used generally, and at the time of what
23 we're discussing here, were being used in the
24 local markets for producing demographic and, in
25 some cases, household audience estimates.

294

1   Q.   And how does Nielsen decide which
2 households will get a diary?
3   A.   Again, it's a random selection
4 procedure. I don't know if you want me to go
5 through the sample process or just note that,
6 in fact, it is a -- a random sampling
7 procedure.
8   Q.   Now --
9   JUDGE BARNETT: But -- but then the
10 residents agree or disagree; I mean, do you
11 have some fallout from what you're targeting?
12   THE WITNESS: Oh, absolutely. There's
13 fallout. There's -- there's cooperation that
14 goes on there. It's a -- it's a two-step
15 process where households are initially
16 recruited to keep the diary by phone. If we
17 don't reach them, we mail it anyway.
18   I actually think even if they say they
19 don't want to keep it, we mail it to them
20 anyway, but there's an effort to get them to
21 cooperate. It includes both listed and
22 unlisted phone numbers.
23   And there is a process -- I mean, they
24 get sent it. They get incentives in order to
25 keep it, but there is a fairly large proportion

295

1   -- and I hate to say that -- but a reasonably
2   large proportion of people that, in fact, don't
3   agree to keep it. That's an issue with
4   research all the way around.
5   But, overall, we do pretty well
6   because of the Nielsen name and the
7   understanding with it. People like to
8   participate because it means something to them.
9   BY MS. PLOVNICK:
10   Q.   Can you just generally describe the
11   sampling process that Nielsen employs in
12   selecting households to send diaries to?
13   A.   In this particular case, it's a
14   process where there's a random selection
15   procedure among -- and, again, this has changed
16   since, but at the time of this particular
17   study, a random process of identifying listed
18   phone numbers, so that in that case we know
19   both the phone number and the household
20   address. And then that's augmented by a random
21   sampling of unlisted phone numbers in household
22   blocks.
23   And so this random procedure goes on
24   where they're then called in an effort to gain
25   cooperation. And as I said, in the cases where

296

1   addresses are known, they're sent the diary,
2   regardless of whether they cooperate or not.
3   JUDGE FEDER: Is there anything done
4   to reach household that may not have a
5   landline?
6   THE WITNESS: At the point in time
7   that we're talking about, there wasn't. There
8   currently is. Additional steps have been
9   taken. Cell phones weren't -- weren't as
10   predominant at that point in time, and there
11   were also -- and I forget whether this is still
12   true, to be honest, so bear with me on this
13   one, but there was a lot of rulings as to what
14   you could do in terms of dialing people with
15   cell phone numbers.
16   All had to be hand-dialed and a lot of
17   restrictions around it. So it became
18   prohibitively expensive at the point in time
19   that we're talking about with this study.
20   Additional steps have been taken since then.
21   BY MS. PLOVNICK:
22   Q.   You said "point in time" -- you said
23   "point in time" a couple of times. What
24   particular years were covered by the diary
25   custom analyses that you did for MPAA for these

297

1   proceedings?
2   A.   The diaries covered a period of 2000
3   through 2003 for cable and 2000 through a first
4   sweep of 2004 for satellite.
5   Q.   And when were those analyses
6   performed?
7   A.   The analyses themselves were performed
8   quite a long time ago. I don't remember the
9   exact period of time, to be honest, but I think
10   that the key thing with this is that this
11   analysis was done prior to the introduction of
12   the Local People Meter, which was a method that
13   has come into more prominence since.
14   It is a metered methodology by which
15   people identify, using buttons on the meter
16   itself, who is watching, so there's no need for
17   a diary anymore. And what's important with
18   that is that over time, following the period in
19   question here with the diary analysis, there
20   were many markets that began to be measured
21   with the Local People Meter, and that meant
22   that diaries in those markets went away, so
23   that the point we're discussing, there was a
24   full national sample available for diaries.
25   If you were to do it today, it would

298

1   be, you know, maybe half the country, if that.
2   Q.   So why did you recommend a custom
3   analysis of Nielsen diary data to MPAA for the
4   2000 through 2003 time period?
5   A.   The key factors with that were, first,
6   we had a national sample, which was really
7   important to be able to do that. And so it was
8   a logical choice.
9   The second was that the sample sizes
10   were very large. They are significantly larger
11   than what you find with the meter, particularly
12   at that point in time. During the period in
13   the early 2000s, the metered sample was maybe
14   5,000; the diary sample would have been closer
15   to, over the course of the four sweeps,
16   400,000.
17   So that the decision was made to go in
18   that direction at that point in time.
19   Q.   Now, can you please explain briefly
20   the process Nielsen undertook in preparing the
21   cable and satellite diary analyses for this
22   proceeding?
23   A.   The cable and satellite process was
24   fairly similar. In both cases, what was done
25   was we received in lists of stations that was

299

1   provided by the MPAA. I believe they were
2   called the Kessler stations done by Marsha.
3   We received in those stations. We
4   then identified viewing to those stations. And
5   from that, we then proceeded to eliminate, in
6   the case of cable, non-cable households,
7   because we didn't want them included in it at
8   all. For satellite, we eliminated the
9   non-satellite households.
10   So what we were left was a group of
11   cable homes that had viewed each of the
12   individual stations that were provided to us
13   and satellite homes that had been viewing the
14   stations that had been provided to us.
15   And we then split that viewing based
16   upon geographic definitions that had been
17   provided to us by the MPAA, again, via Marsha,
18   where each county was designated as to whether
19   or not it should be local or distant for
20   purposes of that station.
21   And we then generated viewing from the
22   diary for each station for local among cable
23   households and distant among cable households
24   for the cable study and local for satellite
25   households and distant for satellite households

300

1   for the satellite study.
2   Q.   You mentioned that MPAA identified the
3   counties which were local to the Kessler
4   stations. Is that known as a county analysis?
5   A.   Yes, it is.
6   Q.   And that was provided to Nielsen by
7   MPAA for the 2000 through 2003 years?
8   A.   That is correct.
9   Q.   All right. Now, I want to talk about
10   the second type of custom analysis that you
11   mentioned Nielsen performed for this proceeding
12   related to 2008 and 2009.
13   What was that analysis?
14   A.   That was an analysis of the National
15   People Meter sample.
16   Q.   And when did Nielsen perform those
17   analyses?
18   A.   That was done in 2016, after the
19   Judges had reopened the proceedings.
20   Q.   And what Nielsen database did you
21   perform a custom analysis on in order to
22   produce those custom analyses for '08 and '09
23   for MPAA?
24   A.   We used the Nielsen National People
25   Meter sample. And the People Meter is a device

301

1   that goes onto the television set within each
2   home that's selected. It's a random sample
3   process for selecting those households.
4   Again, I could go into the details in
5   greater detail, if need be. But it is a random
6   sampling of meters with buttons that are used
7   for identifying the persons who were tuning
8   within those homes.
9   Q.   Why did --
10   A.   Sorry. The last part, I think, is
11   important.
12   Q.   Go ahead.
13   A.   It's that that is the basis for what's
14   used for generating the national network
15   numbers that you see all the time as coming out
16   from Nielsen.
17   Q.   Why did Nielsen choose to perform a
18   custom analysis on the NPM database for 2008
19   and 2009 for MPAA?
20   A.   There were really a couple of reasons
21   why I ended up recommending that we go in that
22   direction. The first, and I think is really
23   the single biggest determinant and the one to
24   keep in mind, is that the Local People Meter
25   had begun to become more prevalent, it was

302

1   rolling out in additional markets, and the more
2   markets that began to get measured with a Local
3   People Meter, the less markets there were that,
4   in fact, had diary data available to them.
5   And so, in general, for these types of
6   analyses you don't like to mix methodologies if
7   you can avoid it. It creates different sets of
8   issues going on with the data.
9   And so the very fact that there would
10   have been missing geographies made me nervous,
11   and, secondly, it was a systematic bias that
12   would have been introduced because the markets
13   that were, in fact, switching to Local People
14   Meter tended to be the largest.
15   So you couldn't just go let's look at
16   the diary data that we were seeing and assume
17   it's similar to what would have been eliminated
18   because, quite frankly, it wouldn't have been.
19   And so that became the driving force.
20   In addition, generally speaking
21   throughout the industry, and it's the reason
22   why the Local People Meter has rolled out in
23   the fashion that it is, the meter is considered
24   to be a superior method for collecting viewing
25   data. So the ability to go to something that

303

1 was collecting 24 hours a day, 7 days a week,
2 365 days a year was, in fact, a considerable
3 plus as far as that goes.
4   And then the last factor was, as I had
5 noted in terms of the 2003 period, 2000 through
6 2003 period, the People Meter sample would have
7 been somewhere in the neighborhood of maybe
8 5,000 homes.
9   It had quadrupled in size by the time
10 we got to 2008-2009. So the larger sample
11 sizes, the greater time periods, the superior
12 methodology, and the fact that the diary was,
13 in fact, no longer available in a number of
14 markets made it in my mind a pretty clear-cut
15 choice.
16   Q.   Now, you said many times "Nielsen
17 meter." You've used the term "meter." Let's
18 just define that term.
19   What is a Nielsen meter?
20   A.   Again, there are two types of meters.
21 Just so that it's clear, one of which only
22 measures set tuning. So it's what channel is
23 the set tuned to. And then there are diaries
24 that are provided to independent samples that
25 are used to do the demographics.

304

1   The second type of meter is called the
2 People Meter. There's a local -- you know,
3 there is a local sample and a national sample.
4 The meters themselves really don't differ, so
5 you can think about it as a People Meter versus
6 a household meter.
7   And in that case, basically what
8 occurs is you have the equivalent of the
9 household meter identifying what channel the
10 set is tuned to, and you have a separate meter
11 in which people push buttons to indicate who's
12 in the room.
13   So it is -- it becomes a replacement
14 for the diary information that had previously
15 been used for demographics, but the key is it's
16 a microprocessor that identifies passively what
17 channel the set is tuned to.
18   Q.   How does Nielsen select the households
19 for which to install meters?
20   A.   It's a random sample process. It is a
21 geo-stratified sample. And it is done in a --
22 I'm trying to think of what's the easiest way
23 in terms of explaining it -- but rather than
24 identify households using something like
25 telephone numbers, which as you said would --

305

1 you know, has its difficulties in terms of cell
2 phone service, et cetera, or for that matter
3 having no phones, period, it's based on
4 addresses.
5   And so what we're really doing is
6 selecting geographies and taking it down into
7 smaller and smaller areas in a systematic
8 fashion in order to identify an individual
9 household as if it were on a map. And at that
10 point in time, we send people out to that
11 location in order to recruit them.
12   So it is address-based, which is,
13 again, a very significant difference. And
14 every household in the U.S. can be included.
15 And we've had all kinds of -- you know, mobile
16 homes and all kinds of things that are going on
17 in there.
18   Literally anything that is a housing
19 unit in the U.S. is eligible and has a
20 probability of being selected for that metered
21 sample.
22   JUDGE BARNETT: Mr. Lindstrom, at some
23 point in another proceeding, I believe your
24 testimony was that National People Meter data
25 collection was augmented by local people

306

1 meters.
2   And now I'm hearing something that is
3 slightly more nuanced, and that is that local
4 people meters might be more disbursed, they're
5 not just in urban areas, concentrated in urban
6 areas the same way as national people meters.
7   THE WITNESS: Well --
8   JUDGE BARNETT: Is that the right
9 impression for me?
10   THE WITNESS: The question was a
11 perfect one, but at the same time it's a little
12 bit twisted around. So let me just try and
13 answer that. I'm really glad you asked it.
14   In the first case when we were talking
15 in the previous proceedings, what was happening
16 is that we had the National People Meter
17 sample, and within that -- and I'm making up
18 numbers here -- but let's just say there were
19 20,000 households with national people meters
20 in it. And New York makes up about 10 percent.
21   So what we would be doing is going:
22 Well, we've got 2,000 people meters in New
23 York. Why not use them to measure the local
24 market as opposed to basically going out and
25 putting in 2,000 meters separately? It's just

307

1   a waste -- it's not a very efficient way of
2   doing it, and you can end up with two different
3   sets of numbers, you know, slightly different
4   but basically two different sets of numbers.
5   And if you take that a little bit
6   further, then you can go, well, if we go into
7   some smaller markets and it's not as large as
8   New York, so we don't have 10 percent of the
9   country, we have 1 percent, and in that case
10   you've got 200 homes that already have people
11   meters, but you want a thousand.
12   And so what you would do is add 800
13   more in order to bring you up to the sample
14   size that seemed appropriate for the market.
15   So that was the augmentation that was going on
16   that we were talking about in the prior --
17   prior proceedings.
18   At the point in time that we're
19   talking about here, this was prior to that step
20   having occurred. And so in the situations
21   where there were local people meters like New
22   York, Chicago, Boston, in those situations,
23   there was actually two independent samples.
24   There was a separate New York Local People
25   Meter, and completely separately there was this

308

1   sampling process for the National People Meter
2   where some homes would have been New York, but
3   they just weren't used for the local reporting.
4   Does that make sense? Do you sort of
5   follow?
6   JUDGE BARNETT: Yes. Thank you.
7   BY MS. PLOVNICK:
8   Q.   So what was the process Nielsen
9   undertook in preparing the National People
10   Meter cable and satellite analyses for this
11   proceeding?
12   A.   This was very similar, again, to what
13   was done for the diary. Conceptually very much
14   the same.
15   We received in a list of stations. We
16   took those stations in. We -- for the cable
17   analysis, we eliminated non-cable households
18   from being included for each of the stations.
19   For the satellite analysis, we
20   eliminated non-satellite households from the
21   analysis, and both of these were done
22   separately, so that we were left with only
23   satellite homes to be used for the satellite
24   analysis.
25   We then took a look at each station we

309

1   received in from the MPAA, which I believe came
2   via CDC, a list of counties that would be
3   considered local for each of those stations.
4   And we then divided up the viewing to each of
5   the stations that we had been provided into
6   quarter-hour level viewing for local and
7   distant for that station among satellite
8   households and among cable households.
9   Q.   And when you say CDC, do you mean
10   Cable Data Corporation?
11   A.   Yes, I do.
12   JUDGE FEDER: Excuse me. So if, in a
13   particular market, you have a thousand -- a
14   random sample of a thousand households and 800
15   of them are cable households, so you take that
16   subset, is that -- that subset of 800, is that
17   still a random sample?
18   THE WITNESS: Yes. I mean, again --
19   and keep in mind that these analyses are not
20   being done on a market level per se, but if you
21   think about it, what ends up happening in terms
22   of a random sampling procedure is that if you
23   do the random sample correct, then it should
24   fall out correctly for cable and it should fall
25   out correctly for non-cable, each of which

310

1   would be representative and as a random sample
2   for that piece of it. So, yes, if there were
3   800 cable homes, it should be a random
4   distribution of those cable households.
5   BY MS. PLOVNICK:
6   Q.   Now, Mr. Lindstrom, you mentioned that
7   the National People Meter custom analyses that
8   you did were for 2008 and 2009. Why did you
9   only analyze those years?
10   A.   What ended up happening in this case
11   was that Nielsen had gone through a bit of an
12   evolution. As I said, we had shifted around,
13   we started incorporating the local people
14   meters into the national sample. There had
15   been a lot of things that have occurred since
16   that period of time, which was, you know, ten
17   years ago.
18   In the course of it, there had been a
19   lot of systems that, in fact, were no longer
20   supported and no longer available to be able to
21   be used. There were also issues in terms of
22   the data sets and data retention, and so that
23   it made it difficult to, in fact, go back
24   beyond what we produced for 2008-2009 to be
25   able to do the data.

311

```
 1          JUDGE STRICKLER:  Was it difficult or
 2   impossible?
 3          THE WITNESS:  I will qualify that
 4   slightly in going I think it could be done
 5   given time and money, but impossible given the
 6   time and money that could be done with what the
 7   Judges were looking for, for this proceeding.
 8          It would have been a very timely
 9   effort in order to re-create the software to
10   allow it to be done.
11          JUDGE STRICKLER:  By "timely," you
12   mean time-consuming?
13          THE WITNESS:  Time-consuming, yeah.
14   Sorry.
15   BY MS. PLOVNICK:
16      Q.    Now, I want to talk about the third
17   type of data Nielsen provided for this
18   proceeding, which you said was local ratings
19   data.  So what is local ratings data?
20      A.    Nielsen produces reports for each
21   sweep for 200 some odd markets across the
22   country.  The entire United States is divided
23   up into those markets.  And these are the
24   reports that are issued for each of those local
25   markets and is used for the buying and selling
```

312

```
 1   of advertising in those markets.
 2      Q.    Is that a custom analysis?
 3      A.    That's not a custom analysis.  It's
 4   what we call a syndicated product, which is a
 5   multi-client data collection and supported by
 6   both the buy and the sell side of the business,
 7   so stations pay for it, cable systems pay for
 8   it, as do agencies and advertisers.
 9      Q.    What years did Nielsen provide local
10   data -- local ratings data for, for this
11   proceeding?
12      A.    For 2000 through 2009.
13      Q.    All right.  Now I want to talk briefly
14   about the issue of zero viewing.  What does
15   zero viewing mean?
16      A.    Zero viewing seems to be one of the
17   most consistently misunderstood aspects of how
18   to produce ratings data.  And I think it has
19   really done a disservice to call it zero, zero
20   cells or zero viewing, because what it really
21   represents is not an estimate by Nielsen that,
22   in fact, nobody was viewing.  That's -- you
23   know, we purposely go out of our way to
24   indicate that that's not the case.  And we do
25   it with designations within the reports,
```

313

```
 1   indicating that there is low audiences and too
 2   low to be identified, but that they're still
 3   there.
 4          The real key is that it is
 5   non-recorded viewing, so that as we went
 6   through in order to do the measurements, there
 7   were periods of time for individual stations
 8   for which we did not identify any viewing as
 9   occurring.  But it is a sample-based issue as
10   to what was determined within the sample versus
11   what might be estimated in terms of what those
12   audiences reflect.
13          JUDGE STRICKLER:  Is it more accurate
14   to say -- and correct me if I'm wrong -- that
15   when you have what has been called and you've
16   criticized the name of zero viewing, that when
17   the viewing gets to be below a certain
18   threshold, it's either zero viewing literally
19   or just low viewing below the threshold, but
20   there's no way for you to capture that, given
21   your -- your analyses, so we're just left
22   without being able to make a determination one
23   way or the other?
24          Common sense might suggest that
25   there's low viewing, but it may also be zero
```

314

```
 1   viewing.  There's just nothing in the data to
 2   inform us.  Is that accurate?
 3          THE WITNESS:  That would be accurate.
 4   I would also qualify it as being part of the
 5   probabilities associated with these
 6   measurements, which I could clarify if need be,
 7   but I think it's a fair assessment to say we
 8   didn't identify any viewing as having occurred.
 9   Theoretically, there could be none.  The odds
10   of there, in fact, being none is pretty small,
11   that odds are there is some occurring
12   somewhere, but that information is not
13   available to be able to determine, but still in  .
14   using the aggregate data and putting those
15   together into averages is a perfectly
16   legitimate way to go about it.
17          JUDGE STRICKLER:  When you say odds
18   are there must be somebody watching even when
19   you don't have any measurement, "odds" is -- is
20   sort of the word to use informally when you're
21   talking about a statistical description or
22   analysis, and we don't have one, so, therefore,
23   it's all indeterminate below the threshold,
24   whether it's literally zero or some smaller
25   amount.
```

315

1   It sounds more like when you used the
2   word "odds" in the vernacular that we're
3   talking about common sense suggests that there
4   must still be people watching, but if it is
5   indeed common sense, we're no longer in the
6   realm of expert testimony, and we're saying,
7   oh, come on, somebody must be watching these
8   films.
9   THE WITNESS: No, I was trying to
10   think of what's an example to -- because I
11   always have a hard time with it and I've tried
12   it at different points in time. And let me
13   take one other way of trying to use an example.
14   Hopefully, it's apropos.
15   But I thought about it as like having
16   a dart board. And I don't want to exactly use
17   that as being the best analogy, but I'm going
18   to in this particular case, and going if I go
19   through and it is over there by Lucy and I take
20   my dart.
21   (Laughter.)
22   MS. PLOVNICK: I am a target?
23   JUDGE STRICKLER: Do you want to wait
24   for cross-examination, Mr. Lindstrom?
25   (Laughter.)

316

1   THE WITNESS: Yeah, I'll wait until
2   somebody who I like less -- no, but so I go and
3   I throw the dart. And there's two things that
4   can happen. I can either hit the dart board or
5   I can miss it. All right?
6   And the reality is that when I do this
7   that it's either 100 percent a hit or it is 100
8   percent a miss. And the reality is that I'm
9   neither that good to hit it all the time or
10   that bad to miss it all the time.
11   And so, you know, if I do a few more
12   and I start throwing these, and let's say I do
13   it a hundred times, and I'm pretty good at what
14   I'm doing, you know, and 60 percent of the time
15   I end up getting it in there, you know, and
16   40 percent I don't, the reality is that that is
17   beginning to get closer to what the reality of
18   what my situation is with the probability of
19   how many times I actually have an occurrence,
20   and you can think about that as viewing, or how
21   many times I don't, as this non-viewing or zero
22   cell.
23   And all that my point is is going any
24   given sampling point, you know, as I go to toss
25   it, is either yes or no and is inaccurate, and

317

1   you have to put together the misses with the
2   hits in order to average out to the correct
3   types of levels.
4   And so when I answer that question of
5   going would I, in fact, think that there was
6   nobody there, I can say I measured it and I
7   didn't find anybody in that particular
8   quarter-hour. But I wouldn't use it to make a
9   judgment on any given quarter-hour. I might
10   include 10 as a period or 30 or a week's worth
11   of data.
12   And if I were to do that and to create
13   an average, then I am going to end up finding
14   audiences that are averaged out over those
15   quarter-hours and I can legitimately make a
16   determination that would say over this period
17   of time, I think that there was viewing that
18   occurred.
19   And that might be, you know, less than
20   the standard or it might be above it, but it's
21   really important to go: I can make a judgment
22   with the aggregated data that's reasonable even
23   though the inference on an individual
24   quarter-hour is it could be zero or there could
25   be audience there or, quite frankly, using my

318

1   dart board example, when I don't hit
2   100 percent of the time, those instances where
3   I do hit, it's going to look like I overstated.
4   And there could be points where the audience
5   looks a bit too big and there would be points
6   it looks too small, and you add it all together
7   and average it out and it comes out the way
8   that it should.
9   I mean, I hope that that clarifies,
10   but I think that's the point, is that you don't
11   or you shouldn't judge it on any individual
12   sampling point, that it's really the
13   aggregation of them. And there's ways of
14   making that analysis work better with
15   quarter-hours and stations, but it's the same
16   principle, I think. Does that --
17   JUDGE STRICKLER: Does that mean that
18   you treat zero viewing as zero viewing but then
19   you average it with positive viewing so that,
20   on average, you come out with a positive
21   number?
22   THE WITNESS: That's a fair
23   assessment. And that's why when we produce the
24   reports that we did for the MPAA, we actually
25   printed zeros. In the reports themselves,

319

1 you'll never see a zero that ends up occurring
2 because we know that, again, based on our own
3 averages within those periods, odds are there's
4 some viewing or we can't tell. So it will get
5 a caret, just to say beware here, you know,
6 this is a low number.
7   But in order to be able to do the math
8 for anyone who's doing the analysis, you need a
9 numeric value. And so the numeric value that
10 got put in for the diary analysis was a zero.
11 But it's not really a Nielsen estimate that
12 that, in fact, was a zero; it's just what you
13 need to do to put it together.
14   JUDGE STRICKLER: Thank you.
15 BY MS. PLOVNICK:
16   Q.   You just mentioned that zeros were put
17 in for the diary reports. Is so-called zero
18 viewing shown differently in the custom
19 analysis of diary data that Nielsen performed
20 for 2000 through 2003 versus the custom
21 analysis of NPM-metered data that were
22 performed for 2008 and 2009?
23   A.   Yes, it was. And it was -- it was
24 done really for efficiency's sake. And in this
25 case, rather than actually have Nielsen put the

320

1 zeros in, we left the data lines or data cells
2 blank for which Jeff Gray could fill in the
3 zeros, but it was an implied zero and ought to
4 be used as such, again, for the calculations in
5 the fashion that we're discussing, but it's
6 that if you were to actually look at a printout
7 of the data, one would have zeros in it; one
8 wouldn't.
9   Q.   If there are a large number of
10 instances of zero or non-recorded viewing in
11 the custom analysis that Nielsen provided for
12 this proceeding, would that surprise you?
13   A.   No, it would not.
14   Q.   And why not?
15   A.   Really for two reasons, one of which
16 is that with any syndicated measurement -- and
17 I used this number in the past; I don't happen
18 to recall the exact one now -- but even the
19 National People Meter, in terms of the
20 measurement of all the cable networks and the
21 broadcast networks and used for a 70 billion
22 dollar television business, has 65 percent zero
23 cells if you were to go through and look at it,
24 that the majority -- you know, somebody had
25 given me a big data example, I would love to

321

1 use, it's not quite the same here, but going
2 it's a little bit like the universe, there's a
3 lot out there, but a lot of it is nothing.
4   And, in fact, that is true here, that
5 the importance is understanding it and
6 realizing that all of those do come into the
7 math that's associated with it.
8   In the case of the analyses that we're
9 doing here, the problem gets compounded further
10 because the viewing levels are just very low.
11 And so the lower the viewing levels to begin
12 with, the more zeros you're effectively having
13 to average in, I mean, just in terms of how it
14 falls out with probabilities, not that that's a
15 forced thing, but that you would expect more
16 zeros to be averaged in, in order to get the
17 correct aggregate viewing levels.
18   JUDGE BARNETT: When you say viewing
19 levels are so low, you mean there's such a
20 small percentage that is distantly
21 retransmitted?
22   THE WITNESS: Yes, that if you were to
23 think about it and go if the average number of
24 people that were viewing a particular station
25 on a distant basis was a thousand, you know,

322

1 just kind of making up numbers, and the average
2 number of households in the U.S. is about 200
3 million and there's around 20,000 so you've got
4 -- I'm trying to go through in my head, going
5 well, is the math there? You know, it's about
6 10,000 or so as being equal.
7   As the value of each of those homes,
8 it's going to say you would expect that any
9 time you would turn up viewing, you know, for
10 one instance of viewing, you're going to have
11 nine others that you wouldn't, simply because
12 the value of the viewing, you know, you say the
13 average viewing divided by the value of the
14 sample household to begin with is kind of 1,000
15 divided by 10,000, would go you'd really expect
16 only one in ten times that you would hit it.
17 And so it would end up with 90 percent zeros.
18   And so that's just using a very rough
19 math, but why that happens, it also
20 conceptually, again, because I think a lot of
21 people don't really think about it this way,
22 but going for any given individual on a cable
23 system, you might have several hundred channels
24 that you could be viewing.
25   And you're going you only view

323

1   20 percent of the time to begin with on average
2   in terms of people. And at any given point in
3   time, you can only watch one of those channels,
4   you know, so it sort of gets to a point of
5   going you really expect that there is going to
6   be a lot of these very low levels for most of
7   the channels and many, many, many individual
8   cells of zero viewing accordingly, but it
9   doesn't impact the veracity of the aggregated
10   numbers.
11   JUDGE BARNETT: So it's not a function
12   of how much of broadcast television is
13   distantly retransmitted?
14   THE WITNESS: Well, it is to the
15   extent of if you are being retransmitted by
16   only a limited number of small cable systems,
17   then the number of people that could watch to
18   begin with is going to be very low.
19   I mean, I think that there was an
20   example from one of the proceedings of -- I
21   don't know whether it was one cable system --
22   but it had 500 people on it and going, you
23   know, it's not a fault that there would have
24   been zero viewing within that system because
25   it's so small to begin with and the number of

324

1   people that would have viewed, you know, is
2   probably in single digits.
3   On the other hand, if you did find
4   somebody who was viewing and you tried to
5   project it out, it would look like it's much
6   bigger than the cable system in total. But
7   that, again, is all part of that sample process
8   and the probabilities that come together as you
9   add it up.
10   So it's a function of all the
11   coverage, of the distribution, of the size of
12   the audiences to begin with, but this is a
13   method that should work quite well for still
14   being able to determine those viewing levels.
15   MS. PLOVNICK: Thank you,
16   Mr. Lindstrom. I have no further questions on
17   direct.
18   MR. BOYDSTON: Your Honor, could we
19   just have a two-minute bathroom break?
20   JUDGE BARNETT: Certainly. I think
21   that would be in order. Two minutes.
22   (A recess was taken at 11:13 a.m.,
23   after which the trial resumed at 11:19 a.m.)
24   JUDGE BARNETT: Please be seated. Mr.
25   Boydston?

325

1   MR. BOYDSTON: Thank you, Your Honor.
2   CROSS-EXAMINATION
3   BY MR. BOYDSTON:
4   Q.   Good morning, Mr. Lindstrom. My name
5   is Brian Boydston, and I represent the
6   Independent Producers Group.
7   A.   Good morning.
8   Q.   You've testified in the -- as you
9   know, this is a second round of these
10   particular proceedings. You testified in the
11   first round, I believe, correct?
12   A.   That's correct.
13   Q.   And did you -- do you recall reviewing
14   rebuttal testimony submitted by the Independent
15   Producers Group in the first round, written --
16   written documents that took issue with various
17   positions of the MPAA?
18   A.   I don't recall.
19   Q.   Do you recall if you did that after
20   the initial round of these proceedings and
21   before today?
22   A.   I don't believe so, but I don't
23   recall.
24   Q.   Could I ask you to take a look at what
25   has been marked as Exhibit 22 in the binder

326

1   that's actually just to your right there on the
2   table. I have opened it up to that page or to
3   the beginning of what's been marked Exhibit 22.
4   And it is entitled Testimony of Laura
5   Robinson, Independent Producers Group Rebuttal
6   to the Written Direct Statement of the Motion
7   Picture Association of America.
8   And it is not a short document, so I
9   don't need you to read the entire thing, but
10   can you take a quick glance at that and tell me
11   if it looks familiar, if it looks like anything
12   you may have reviewed in the past?
13   A.   Yeah, I don't believe so, but I
14   couldn't say completely. Certainly not any
15   time recently.
16   Q.   Okay. And in preparation for this
17   round of proceedings, which was initiated by an
18   order by the Judges in the spring of 2016, you
19   were obviously called upon as you testified to
20   assist the MPAA in preparing its position,
21   correct?
22   A.   I have been called on, when I have
23   been called in, in order to explain the details
24   behind the Nielsen analyses, and so I think
25   that that's an important distinction.

327

1   Q.   Were you asked in connection with
2 these proceedings to assist with responding to
3 criticisms that were raised by Independent
4 Producers Group in the first round of these
5 proceedings?
6   A.   No, I was not.
7   Q.   Could you please turn the page to page
8 32 of the document that's in front of you
9 there, Exhibit 22. Again, that is page 32.
10   And I am focusing on the last -- the
11 last sentence that begins on that page and
12 continues to the following page in which
13 Dr. Robinson states: "Further examination of
14 the Nielsen 2000-2003 sweeps data illustrated
15 below on Table 4 submitted herewith as
16 Exhibit 215" --
17   MS. PLOVNICK: Objection. We object
18 to Mr. Boydston reading into the record
19 something that has not been admitted as
20 evidence.
21   JUDGE BARNETT: What's the purpose of
22 reading this into the record, Mr. Boydston?
23   MR. BOYDSTON: Well, to give him the
24 information that's in here and then ask him the
25 question: Is this consistent with your

328

1 expectation about zero viewing?
2   JUDGE BARNETT: Okay. He can read it.
3 We don't need to read it into the record. And
4 then you can ask him a question.
5   MR. BOYDSTON: Certainly.
6   JUDGE BARNETT: Sustained.
7 BY MR. BOYDSTON:
8   Q.   If you would read the sentence I
9 began, which then continues on to the next
10 page.
11   A.   Okay.
12   Q.   Is this consistent with your
13 expectation that you were testifying about
14 before in terms of the incident -- incidents of
15 what has been called zero viewing?
16   A.   It is not inconsistent with it.
17   Q.   So it is consistent?
18   A.   Yeah.
19   Q.   Looking at page 33, there is a
20 footnote there, it happens to be footnote 33.
21 Could you read the first sentence of that
22 footnote.
23   A.   Okay. That's okay? I just want to
24 make sure when you are saying we weren't
25 reading in.

329

1   JUDGE BARNETT: Read it to yourself,
2 yes.
3   THE WITNESS: Okay. That's what I
4 wanted to make sure. Okay. Thank you.
5   MS. PLOVNICK: Your Honor --
6   THE WITNESS: Okay.
7   MS. PLOVNICK: -- before another
8 question is asked, I just want to -- I may be a
9 little bit anticipatory, but I see this
10 footnote is actually regarding some prior
11 designated testimony that I don't believe is in
12 the record in this proceeding.
13   It mentions something about a couple
14 of different past proceedings, none of which, I
15 believe, have been offered or introduced into
16 evidence here.
17   So we would object to IPG asking Mr.
18 Lindstrom about prior records that are not in
19 the record here or prior testimonies that is
20 trying to use this footnote for that purpose.
21   JUDGE BARNETT: Overruled. He can ask
22 a general question about the content of that
23 testimony. If Mr. Lindstrom feels comfortable
24 answering the question, he can answer it.
25   MR. BOYDSTON: May I?

330

1 BY MR. BOYDSTON:
2   Q.   Mr. Lindstrom, is the -- do you have
3 any reason to differ with the statement that we
4 just read that is attributed to you?
5   A.   No, I do not.
6   Q.   Okay. And you have read it, but it is
7 not in the record, just in your own words,
8 could you state what it is?
9   A.   I think it is consistent with what I
10 have said, that any individual estimate that's
11 being produced is likely to have very large
12 relative errors. And they need to be looked at
13 in aggregate in order to -- to have the
14 veracity that, I think, you know, that you
15 would really like to have.
16   Q.   And previously in your testimony you
17 were talking about the impact of a situation in
18 which you are talking about a population of
19 subscribers that is low. And I think what you
20 were saying is that when that population is
21 low, the incidents of a dart hit, if you will,
22 is going to be fewer, correct, just simply
23 because it is a smaller sample size?
24   A.   If there are low numbers of
25 subscribers and low viewership, yes.

331

1   Q.   And what you have -- what you were
2 talking about previously was that if in a
3 situation where there is, I think, 5,000 or
4 less households, the relative error factor,
5 that you believe the relative error factor of
6 89 percent would be expected, correct?
7   A.   I couldn't tell you what would be the
8 expected relative error value without taking a
9 look at it and that will vary considerably, but
10 I do think that it is safe to say that it would
11 be large. And that's a large relative error.
12   Q.   Okay. Well, at some point you came up
13 with a number of 89 percent as is referenced in
14 this footnote. Is that accurate or inaccurate?
15   MS. PLOVNICK: I object. This is,
16 again, putting in things that are not in
17 evidence.
18   JUDGE BARNETT: Sustained. That
19 number was specific to a prior proceeding and
20 it is not part of this proceeding, not part of
21 this evidence.
22 BY MR. BOYDSTON:
23   Q.   Have you calculated the incidents of
24 zero viewing in preparation for this
25 proceeding?

332

1   A.   No, I did not.
2   Q.   Were you asked to?
3   A.   No, I was not.
4   Q.   Were you directed not to?
5   A.   No, I was not.
6   MR. BOYDSTON: Your Honor, I would
7 like to ask some questions of the witness with
8 regard to the decision on the distribution of
9 1993, '94, '95, '96, '97 cable royalty funds,
10 which is printed in the Federal Register on
11 December 26th, 2001. May I present a copy of
12 that to the witness and counsel?
13   JUDGE BARNETT: Please. And the
14 bench?
15   MR. BOYDSTON: And the panel.
16   JUDGE BARNETT: Thank you.
17   MS. PLOVNICK: For the record, I
18 believe this decision was later vacated, so we
19 would like that to also be part of the record
20 with regard to this particular use of this
21 document.
22   JUDGE BARNETT: Thank you. You don't
23 happen to have a citation on that, do you?
24   MS. PLOVNICK: Your Honor, I don't off
25 the top of my head, but I think it came out in

333

1 April of '04, but I would have to look up the
2 Federal Register citation.
3   JUDGE BARNETT: Thank you.
4   JUDGE STRICKLER: Vacated by whom?
5   MS. PLOVNICK: Vacated by the
6 Librarian, I believe, or the Register. I would
7 have to, again, look and see which one it was.
8 It might have been the Register of Copyrights
9 that vacated it.
10   JUDGE STRICKLER: I am just looking.
11 Are you sure? Because the first page, the
12 summary suggests, and this on its face at least
13 this, is a rejection of the initial and revised
14 CARP report.
15   MS. PLOVNICK: Right. I believe that
16 the circumstances were that there was a
17 settlement was reached and then the part of the
18 three-party settlement agreement between the
19 Librarian of Congress, IPG, and MPAA, the
20 decision was vacated by the Librarian.
21   JUDGE BARNETT: Thank you.
22   MS. PLOVNICK: We can provide the
23 citation at the next break, Your Honor.
24   JUDGE BARNETT: Thank you. I was just
25 going to say that. Mr. Boydston?

334

1   MR. BOYDSTON: Thank you.
2 BY MR. BOYDSTON:
3   Q.   Actually, before we go into this
4 decision, I want to ask another question.
5   To the extent that you made no
6 calculation about zero viewing for this
7 proceeding, upon what basis do you say that the
8 instance of zero viewing meets with your
9 expectations?
10   A.   I used the example of the People
11 Meter. And I have probably spent -- I don't
12 want to say 30 years of testimony, but, you
13 know, in terms of these proceedings, always
14 talking about this as an issue, so I -- I have
15 gotten familiar with what to expect and from my
16 own industry experience.
17   Q.   So your expectation is based upon your
18 general experience and knowledge, not a
19 specific calculation, correct?
20   A.   That is correct.
21   Q.   Now, with regard to this decision, if
22 I could ask you to take a look at the page
23 which is marked 66450, and it is up in the
24 upper left-hand corner of the document. They
25 alter back and forth between being in the upper

335

1   left and upper right. This happens to be in
2   the upper left.
3   Again, it is 665 -- excuse me, 66450.
4   A.   50.
5   Q.   Yes. Let me know when you are there
6   at that page.
7   A.   I am there.
8   Q.   I am focusing on the column on the far
9   left and about a quarter -- a third down the
10   page there is a paragraph that begins, "MPAA
11   continues to insist that Mr. Lindstrom's
12   adequately explained the high number of zero
13   viewing hours."
14   Could I ask you to read that full
15   paragraph, which ends with the next paragraph
16   which begins "WTPS"?
17   A.   Okay.
18   Q.   Now, at the beginning of that
19   paragraph, the decision attributes some
20   comments by your testimony by you about zero
21   viewing hours, and then there is a comment made
22   that seems to be attributed to the panel, that
23   the more these sort of imprecise bricks you
24   throw on the pile, the more accurate the
25   overall number is going to be.

336

1   And then it says, "we make a lay
2   people's observation that when you aggregate
3   lots of zeros, the result is still zero." Do
4   you agree with -- do you disagree with that
5   assessment regarding when you aggregate a lot
6   of zeros, the result is still zero in the
7   context of this?
8   A.   Yes, I do.
9   Q.   So you agree with it?
10   A.   No, I don't.
11   Q.   Oh, I'm sorry. And I was unclear. So
12   you disagree with that statement?
13   A.   Yes, I do.
14   Q.   And why is that?
15   A.   I used my example of the dart board
16   going. It would be a misuse of the data to
17   simply look at the darts that missed the board
18   and think you could make an observation beyond
19   the fact that I missed at a certain percentage
20   of the time.
21   It would be a fundamental flaw and
22   misuse of the information to only pull out the
23   misses and think that you can make an
24   observation of any kind regarding that
25   particular data set.

337

1   It has to be looked at in the context
2   of the hits and the misses. And that's the
3   reality of it.
4   Q.   So if one is actually trying to use
5   that data and make, you know, assumptions,
6   predictions, rather, from that data and all you
7   have got is a zero for a particular time slot,
8   what other data is there to use, other than the
9   zero?
10   A.   As I have said repeatedly, you
11   shouldn't use the data for looking at an
12   individual station in an individual time slot.
13   It would be, again, as foolish as making a
14   prediction all from the fact that I either hit
15   the dart board or I missed it, because it is an
16   incomplete data set.
17   It has to be looked at in total and in
18   aggregate in order to have validity.
19   Q.   And that's one of the problems with
20   trying to look at the small population,
21   correct? You have got only 5,000 people in
22   your population, and you are talking about a
23   very small dart board as opposed to a
24   population of 50,000 or 500,000, correct? It
25   is harder to get hit with a smaller dart board,

338

1   correct?
2   A.   That is correct. But in an overall
3   context, you will still get a very good idea of
4   the very low level of viewing that is going on
5   to whatever that viewing source is.
6   Q.   But when it is zero, it is pretty hard
7   to know how low is low, correct?
8   A.   For an individual quarter-hour, it
9   might be zero. You are going to find viewing
10   instances that will end up occurring to
11   aggregate up. It just depends on what level of
12   aggregation you are looking at.
13   And it may very well be that if you
14   are looking at a very small distribution, then
15   you look at larger levels of aggregation.
16   But the reality is, as I still go back
17   to, trying to look at an individual station and
18   an individual quarter-hour is like taking one
19   throw at the dart board. It's a single sample
20   point, and it really can't tell you much of
21   anything.
22   Q.   Fair enough. Now, talking about your
23   solution, so to speak, or your joint of that,
24   you should aggregate the data. If you
25   aggregate the data and it still shows

339

1 significant zero viewing; for instance, if it
2 shows 40 percent of all programs for all
3 broadcasts are given a zero, then has that
4 aggregation really solved the problem?
5   MS. PLOVNICK: I object to the number
6 reference. This is, again, trying to get in
7 material that is not a part of this record.
8 The 40 percent reference is a reference to
9 Dr. Robison.
10   JUDGE BARNETT: He can ask it as a
11 hypothetical.
12   MR. BOYDSTON: That's what I meant it
13 as.
14   THE WITNESS: Okay. If you could
15 repeat the question.
16 BY MR. BOYDSTON:
17   Q.   Sure. You said: Well, that's why you
18 shouldn't use these in isolation, you should
19 aggregate them. And I said: Okay, but what if
20 you aggregate these statistics, and you still
21 have a significant zero viewing problem,
22 something in the 40 percentage range for all
23 programs in all broadcasts, even after you
24 aggregate, doesn't that still present a
25 problem? Or you can say: Well, it is only 40

340

1 this, 40 that, so that's okay?
2   A.   Well, my response to that, and, again,
3 it is a hypothetical response, because I can't
4 answer for any of the statistics that are being
5 cited that, once again, if you are looking at
6 an individual program, even across some portion
7 of time, it is still a limited number of
8 sampling points.
9   And it would suggest that as you start
10 adding in stations and you start adding in
11 programs, because any category of viewing, et
12 cetera, is going to be an aggregation of those
13 programs, then, again, the data will aggregate
14 correctly.
15   It is just a question of going the
16 smaller the viewing and the smaller the
17 distribution, the more you should really
18 aggregate together in order to legitimately
19 examine them.
20   So it would not surprise me if for
21 small levels of stations and small levels of
22 viewing, that there were programs that, in
23 fact, you could find that didn't have viewing
24 associated with it, but, again, you have got to
25 look at the rest of them in order to aggregate

341

1 them up.
2   Q.   And as I think you were alluding to
3 the fact that, you know, that size matters in
4 terms of what you are looking at. If you are
5 looking at a population size of 500,000, you
6 are probably not going to have near the issue
7 with zero viewing that you would with a smaller
8 group like 5,000. I think that's just logical.
9 With you agree with me? Because you are going
10 to have more potential data points in a bigger
11 population.
12   A.   Yes, if you are saying that only 5,000
13 people can see a given station versus 500,000
14 being able to see a given station, you would
15 expect that you would have more zero viewing
16 for the 5,000, but I don't know that I would
17 categorize it as a problem. I would categorize
18 it as you need to aggregate viewing up for that
19 5,000 in order to have a legitimate estimate.
20   Q.   Whereas with a large population of,
21 say, 500,000, you don't have as much of a need
22 to aggregate the numbers up, correct?
23   A.   I still would. I think, in general,
24 for the levels of viewing that are being
25 determined within these hearings, I would be

342

1 looking at levels of aggregation as much as
2 possible.
3   Q.   And isn't it the case that this
4 particular royalty and these particular
5 transmissions are focused on areas that are not
6 always but generally smaller populations,
7 correct?
8   A.   I'm not sure I understand the
9 question, if you could verify that.
10   Q.   Well, the retransmission royalties
11 that we're addressing here, they are generally
12 paid by cable system operators and satellite
13 system operators that are serving distant
14 customers, not customers that are in big
15 populations of 500,000 people or more?
16   A.   I couldn't tell you at this point in
17 time the level of availability for those
18 individual services, but I think that, again,
19 in those same cases, you are not looking at
20 individual systems. You are looking at
21 aggregates of systems.
22   So it is how many distant subscribers
23 could receive a given station in aggregate that
24 is important and not what the individual
25 station or, sorry, not the individual cable

343

1 system would be because, again, for an
2 individual cable system, the numbers are going
3 to bounce for the very reasons we have been
4 discussing regarding averages.
5   Q.   In the quote I asked you to look at
6 from -- to read, rather, from this decision --
7 at the end of it it attributes a statement to
8 you that zero viewing rating didn't mean zero
9 viewing, you know, actually, what you have said
10 here today as well. And I understand the
11 point.
12   But the decision then has a conclusion
13 that says: To us, the extraordinary high level
14 of zero viewing does not mean that the overall
15 results of MPAA's sample survey are more
16 accurate. Rather, it means the sample survey
17 actually measures much less viewing than MPAA
18 suggests.
19   Do you disagree with that statement in
20 the decision?
21   A.   Well, it is a funny kind of statement
22 because somebody is -- is expressing an opinion
23 of going: There's less viewing that is being
24 measured, but it is not coming from somebody
25 who is in a position presumably of going: This

344

1 is an understandable and expected phenomenon,
2 and it is exactly what you would expect should
3 be happening and that I don't think that either
4 ourselves or the MPAA or anyone has warranted
5 different than that.
6   It is this is what happens in doing a
7 measurement of this kind in producing these
8 types of results. So it's somebody's opinion,
9 but I don't actually in my own opinion think it
10 is a very good one, simply because it is to be
11 expected.
12   Q.   And you don't think that that fact is
13 a reason why this data is an inappropriate --
14 is inappropriate for this use in this
15 proceeding?
16   A.   No, I do not.
17   Q.   Now, the analysis that was -- the
18 custom analysis that was done for the 2000 to
19 2003 time period using the viewing data from
20 the stations chosen by Marsha Kessler, was that
21 the same that was done in the 2000-2003
22 proceeding?
23   A.   That was done originally as something
24 that was for part of the MPAA's own internal
25 process.

345

1   Q.   Was that, as far as you know -- I
2 think you testified in the 2000-2003
3 proceeding, correct?
4   A.   I'm sure I would have.
5   Q.   Do you recall, was that -- was the
6 analysis for that time period done for this
7 proceeding the same as it was done for that
8 proceeding?
9   A.   I don't recall.
10   Q.   Do you have any reason to believe that
11 it was different for this proceeding?
12   A.   You mean in terms of the 2003 data?
13   Q.   2000-2003 data, yes.
14   A.   I'm -- I just am not sure. I don't
15 recall what the circumstances were when that
16 was originally generated.
17   JUDGE FEDER: Excuse me, Mr. Boydston.
18 I am just a little unclear.
19   When you say "this proceeding," do you
20 mean this proceeding or do you mean this
21 proceeding (indicating)?
22   MR. BOYDSTON: I'm sorry, I meant this
23 proceeding.
24   JUDGE FEDER: Thank you.
25   JUDGE BARNETT: The current

346

1 proceeding?
2   MR. BOYDSTON: The one we're in now,
3 yes.
4   (Laughter.)
5   JUDGE FEDER: I'm not sure the
6 transcript quite captured that.
7   MR. BOYDSTON: I appreciate that.
8 Thank you, Judge Feder.
9 BY MR. BOYDSTON:
10   Q.   Again, the question, I will try to
11 make it a little more clearer. Work was done
12 for the 2000 to 2003 proceeding using the
13 stations chosen by Marsha Kessler and doing a
14 custom analysis.
15   My question is do you have any reason
16 to believe that the analysis that's being
17 presented for that time period in the
18 proceeding we're at today differs from that
19 prior proceeding?
20   MS. PLOVNICK: Your Honor, I am a
21 little confused. There was a Phase I
22 proceeding and also a Phase II proceeding for
23 2000 through 2003. Could counsel please --
24 just it must be confusing to Mr. Lindstrom.
25   MR. BOYDSTON: Fair enough. I meant

347

1   Phase II of 2000 to 2003.
2   JUDGE BARNETT: It is kind of a broad
3   question, so I am having difficulty, Mr.
4   Boydston. Could you ask it --
5   MR. BOYDSTON: Do you want me to start
6   all over?
7   JUDGE BARNETT: Sure. Please.
8   BY MR. BOYDSTON:
9   Q.   Mr. Lindstrom, as you recall, custom
10 analysis was done in the 2000-2003 Phase II
11 proceeding based upon the Kessler stations. Do
12 you recall that happening?
13   A.   Yes, I do.
14   Q.   And in this proceeding, the one we're
15 in today, a custom analysis was also done for
16 the 2000 to 2003 satellite viewing based upon
17 the Kessler stations. Did they differ? And I
18 think you say you are not sure.
19   A.   And I am saying I don't want to answer
20 as I am just -- I am not sure. I don't recall.
21 It's quite a while ago.
22   Q.   Okay. With regard to the analysis
23 done for 2008 and 2009, you said that because
24 of structural changes to costs and time
25 constraints, Nielsen only had data for 2008 and

348

1   2009.
2   And then in response to a question
3   from Judge Strickler you said: Well, it could
4   have been done, but it was going to take a lot
5   of time.
6   Was it something where it was just
7   going to take longer than a couple of years to
8   do?
9   A.   I don't know that I have what the time
10 frame would be, but the reality is it would
11 have meant going in and essentially rewriting a
12 software system in order to be able to do it.
13 And so it is just, from a resource and a timing
14 and cost perspective, that just doesn't make
15 sense. That's why I am saying could it be
16 done? Yeah, it could be done.
17   Realistically it wasn't something that
18 could be done within the time frames associated
19 with the opening of the proceeding.
20   Q.   Do you recall what the cost was going
21 to be to do it?
22   A.   I suspect that we didn't even give a
23 cost, just simply one of those things of going
24 the effort that would have gone in to even
25 having to cost something out of that kind would

349

1   be significant.
2   Q.   Do you have an estimate of what the
3   cost would have been?
4   A.   No, I do not.
5   Q.   With regard to the 2000-2009 local
6   ratings data, the local meter data for that
7   time period, which stations was that provided
8   for?
9   A.   I'm sorry, could you repeat that
10 question?
11   Q.   Yes. I am referring to the 2000 to
12 2009 local ratings data that you discussed or
13 the analysis that you discussed based on local
14 meter data for that time period.
15   Was it -- what --
16   A.   There wasn't something that was based
17 on local metered data. It was done, there was
18 a custom analysis that was produced all from
19 National People Meter data. And we provided
20 the local market report that in some cases
21 would be meters and in some cases would be
22 diary-based.
23   Q.   I understand the distinction, thank
24 you.
25   Which stations did it cover or did it

350

1   cover all stations?
2   A.   No. It was a select group of stations
3   that was provided to us by the MPAA.
4   Q.   Was it the same as the Kessler
5   stations?
6   A.   Are you talking about was it the same
7   as the -- I don't recall offhand.
8   Q.   Do you recall how many stations it
9   was?
10   A.   I don't recall the exact number. That
11 should be readily available, though. If need
12 be, we can get that.
13   Q.   I know you said that you didn't
14 calculate a, for instance, a percentage of zero
15 viewing in the Nielsen data. Even though you
16 didn't calculate it, have you seen a consistent
17 average of zero viewing just, even though you
18 didn't make a specific calculation, based upon
19 your general observations? Can you offer
20 general observations of what to expect in terms
21 of zero viewing?
22   A.   It is going to vary for the reasons
23 that we talked about, both in terms of the
24 amount of distribution for a given station and
25 the size of -- of the audiences. So it would

351

1   be -- it would be difficult to estimate off the
2   top of my head, other than to say based on some
3   of the examples that I have done in these
4   proceedings, that you would fully expect that
5   there could be large degrees of zero. And,
6   again, not zero viewing --
7   Q.   Zero reported viewing?
8   A.   Zero reported viewing that was
9   produced within the deliverables as zeros for
10   calculation purposes.
11   JUDGE STRICKLER: Excuse me. Mr.
12   Lindstrom, comparing distantly retransmitted
13   stations and the recorded or reported zero
14   viewing with non-distantly retransmitted
15   stations, do you see a higher incidence in your
16   experience of the recorded or reported zeros
17   for the distantly retransmitted stations
18   compared to local stations?
19   THE WITNESS: I think the context to
20   think about that in is the level of viewing and
21   going, so if you are saying for a given
22   station, would you expect less -- less zero
23   viewing cells within the local market? I would
24   say probably, because you'd probably have more
25   viewing going on within that market, period,

352

1   and greater degrees of distribution.
2   So you would expect that there would
3   be, in a broad sense, that you would expect
4   that you would have less of these zero cells
5   within the local market itself.
6   Distantly, again, you are limited in
7   terms of distribution and in terms of audience
8   sizes.
9   JUDGE STRICKLER: Thank you.
10   BY MR. BOYDSTON:
11   Q.   Mr. Lindstrom, at the beginning of
12   your direct testimony I think you made an
13   observation about what the general zero viewing
14   is across the board. And do you recall what
15   figure you gave? I think it was something like
16   65 percent, but I just don't remember what you
17   said.
18   A.   I said 65 percent as a kind of old
19   rule of thumb using the National People Meter.
20   And, again, keeping in mind that that includes
21   all of the broadcast networks and cable
22   networks, et cetera, so there is a lot of
23   highly-rated programs that are going into that,
24   which is part of the reason why, again, there
25   is probably low degrees of zero cells there

353

1   than you are seeing in the analyses that are
2   occurring here.
3   But it really is an indication that,
4   in fact, it is expected and it is a normal part
5   of the television audience process.
6   Q.   And would you agree with me that the
7   instance of zero viewing is not consistent
8   across the board; it varies? You have some
9   stations that will have very high zero viewing
10   and some with very low zero viewing, correct?
11   A.   To the degree that audience size and
12   distribution changes, that would occur, yes.
13   Q.   And, in fact, are you aware that there
14   are --
15   A.   I would actually go so far as to say I
16   would expect that distribution of zeros in most
17   circumstances would be pretty consistent across
18   stations under those circumstances.
19   Q.   But they would differ station to
20   station, depending upon the size of the
21   subscriber audience, correct?
22   A.   Depending on the size of the amount of
23   viewing and the size of the number of
24   subscribers that would have it available to
25   them. So all things being equal, you would

354

1   expect them to be about the same.
2   Q.   But, in fact, things aren't all equal
3   in terms of the size of subscribers who are
4   receiving various signals? They are not
5   consistent, are they?
6   A.   I would not think so.
7   Q.   Turning back to this page in this
8   decision, if you would look at the middle
9   column at the bottom and read from the last
10   full sentence that begins at the bottom of that
11   column, it begins with the words "in the
12   future, if MPAA continues to present a
13   Nielsen-based viewer methodology," and then to
14   the end of that paragraph on the next column to
15   the right.
16   A.   Okay.
17   Q.   Thank you. Now I am not going to
18   reread it, but just in general, it does make a
19   statement that if MPAA wants to use Nielsen
20   data in the future, that there needs to be an
21   explanation for zero viewing.
22   And actually just as a foundational
23   question, I believe you testified in the
24   proceeding for which this -- this opinion was
25   issued, correct? You are referenced in it

355

1   earlier. I believe you testified in that
2   proceeding.
3   A.   Certainly looks that way.
4   Q.   Okay. All right. Do you recall
5   whether or not after this decision was
6   rendered, whether or not Nielsen was asked by
7   the MPAA to perform certain tasks to try to
8   address zero viewing as directed by this
9   decision?
10   A.   I think it has been an evolutionary
11 process that's gone on through the years in
12 terms of adapting the methodologies. I would
13 have to go back in terms of trying to lay out
14 exactly what was done here and changes that may
15 have been made over time, but I do go back and
16 going this is a registry from 2001, so we're
17 looking at something that was 16 years old at
18 this point in time.
19   And so the details of what was
20 occurring, and even what the methodology was
21 that was used at that point, I just, you know,
22 I've got a DSFN where I don't have one that's
23 that good at this point in time. So it's a
24 difficult one to answer, other than there has
25 been considerable steps moving from diaries to

356

1   meters to, you know, for that matter even the
2   efforts that have gone on in terms of producing
3   regressions have all been done in an effort to
4   improve the measurement, to produce more data
5   to be able to put in in those instances and
6   have made every reasonable step to try and
7   accommodate those things.
8   Q.   And are you familiar with who the
9   expert or experts have been that have attempted
10 to use this additional data that you just
11 referred to Nielsen attempting to produce and
12 provide on behalf of the MPAA, what expert has
13 been retained to do that?
14   A.   I'm not sure I understand that
15 question, nor even if I did understand it, that
16 I could answer it without having kind of laid
17 out what these changes have been in the period
18 since then, which I don't have readily
19 available to me.
20   Q.   In your previous answer, you explained
21 how, you know, there are some changes in terms
22 of data that Nielsen was attempting to provide
23 to the MPAA.
24   However, is it fair to say that the
25 raw data is no different ultimately than it was

357

1   back at the time of this decision?
2   A.   Again, without getting a chance to
3   review it, it is hard to say. I mean, again,
4   you are looking at a period of time that, you
5   know, is very old and one that, in fact, I
6   haven't sort of briefed myself on coming into
7   it. So it is -- it is hard to say.
8   Q.   Are you aware that the -- are you
9   aware that the percentage of zero viewing has
10 actually increased over time?
11   A.   I would fully expect that that would
12 be the case. I think it doesn't take a whole
13 lot more to realize that, in fact, that would
14 happen, than the very growth of cable and cable
15 distribution itself. So the cable penetration
16 has gone up, the number of channels that are
17 being offered are going up, fractionalization
18 has occurred, viewing to those stations across
19 the board has begun to decline.
20   And just using as an example, as the
21 marketplace has evolved now with over-the-top
22 television, with the degrees of information and
23 TV viewing that is available from other
24 sources, that, in fact, overall standard linear
25 broadcast television stations are continuing to

358

1   decline in viewership.
2   And, as a result, as I noted, that
3   zero viewing is in direct and, again, zero
4   recorded viewing, is in direct relationship to
5   overall usage. As usage declines for
6   individual viewing sources, you would fully
7   expect that the amount of cells with zero
8   viewing would also go up, but I think what is
9   important is to able to go through and go:
10 Well, you may have -- and this is hypothetical,
11 I can only use it as an example -- but if the
12 number of zero cells doubled, you go: Well,
13 the context on that could be that the number of
14 stations that are available to individuals has
15 quintupled.
16   It's a statement that, you know,
17 without a direct context is really meaningless
18 in terms of trying to understand it, other than
19 to go: Yeah, TV viewing has gone down on an
20 overall basis and continues to.
21   Q.   And viewing has gone down, but isn't
22 it also the case that subscribership to cable
23 systems and satellite systems has, in fact,
24 increased over time?
25   A.   It has, but I don't think enough to

359

1 make up for the increases in terms of number of
2 channels that are available. I mean, it's just
3 -- it has gone up considerably, and the number
4 of channels that people viewed hasn't.
5   You know, the reality is that there is
6 a limit to how many channels any individual can
7 watch. And, therefore, as you split this pie
8 up into more and more pieces, you are going to
9 have greater number of channels that are going
10 to have very limited viewing.
11   Q.   Or not recorded viewing, correct?
12   A.   But limited viewing and, therefore,
13 will have limited recorded viewing. And that
14 is the expectation, but it hasn't changed in
15 terms of how those methodologies are used and,
16 you know, the -- the importance that they have
17 within the business.
18   As I said, all of this is to be
19 expected.
20   Q.   Returning back to the analyses we were
21 focusing on here, isn't it true that the
22 introduction of more -- of additional smaller
23 subscriber populations also tends to drive up
24 the number of non-recorded situations or zero
25 viewing?

360

1   A.   Only if what you are really saying is
2 that the number of stations with very small
3 levels of distribution was going up. And,
4 again, I want to keep stressing that if an
5 individual system with 500 people falls in
6 there, that doesn't really mean anything if it
7 is one of 35 or 40 or 100 or however many
8 systems carry that station.
9   If you are looking at it in aggregate,
10 you are not reporting an individual station for
11 an individual system using this methodology,
12 and it has to be looked at in aggregate. So I
13 just don't want to get it confused by talking
14 about, you know, limited distributions from
15 some of these small systems because they are
16 brought in to be looked at with large numbers
17 of others.
18   Q.   My last question is just to once again
19 confirm you are not claiming to be an expert in
20 statistics or give expert statistical
21 testimony, correct?
22   A.   No, I am not.
23   MR. BOYDSTON: Nothing further, Your
24 Honor.
25   JUDGE BARNETT: Thank you. Anything

361

1 from the SDC?
2   MS. NYMAN: Just a few questions.
3   JUDGE BARNETT: Okay.
4   CROSS-EXAMINATION
5 BY MS. NYMAN:
6   Q.   Good afternoon, Mr. Lindstrom.
7   A.   Good afternoon.
8   Q.   My name --
9   A.   I guess we just qualify for afternoon.
10   Q.   I looked. I'll make it brief. My
11 name is Jessica Nyman, and I represent the
12 Settling Devotional Claimants or the SDC in
13 this matter.
14   Could you explain what a
15 geo-stratified sample is?
16   A.   It is a systematic way of being able
17 to select addresses. And the way that it is
18 done is it is done in a fashion where you are
19 not simply putting all the addresses in the
20 U.S. into a big database and sampling through
21 it.
22   It is done in a more systematic way
23 where you are taking geographies in a broader
24 sense, somewhat large sets of geographies and
25 going through and sampling initially and then

362

1 taking them down to groups of counties. And
2 from within groups of counties, you then
3 systematically randomly select down into the
4 level of the households.
5   But it is this idea of stepping down
6 geographically, which ensures that you are
7 going to have a good national distribution to
8 begin with.
9   And then within each of those subsets,
10 you should be getting good random distributions
11 as well. But it is a way of doing an
12 address-based sampling method, which is the
13 key.
14   Q.   And would it be correct to say that in
15 a geo-stratified sample for the National People
16 Meter sample, for example, some geographical
17 areas would be included and other geographical
18 areas only have a chance of being included?
19   A.   That is correct. Everybody has a
20 probability of being selected. And so, again,
21 if you believe in sampling all of this works,
22 but it is also true that there will be areas
23 that will be selected and those that will not.
24   Q.   And sweeps data, though, covers all
25 210 Nielsen markets, correct?

363

1   A.   The National People Meter covers all
2   210 markets as well. But it is -- so I am not
3   sure quite what the question is, but, again,
4   there are two different approaches to that
5   sampling. And one is based on phone numbers in
6   terms of how that sampling process goes about,
7   and the other is based on geographies.
8   And, quite frankly, it is a cost
9   consideration that goes in based on timing and
10   the size of the sample. It is very expensive
11   to do the geographic process.
12   Q.   To clarify the last one, so for --
13   sweeps data produces local ratings in each of
14   the 210 markets; is that correct?
15   A.   That is correct.
16   Q.   Okay. And then the next point being
17   you testified about how broadcasters, cable
18   operators, satellite carriers, advertisers all
19   rely on Nielsen sampling data, is that correct,
20   or audience measurement data?
21   A.   That is correct.
22   Q.   Is it correct to say that government
23   agencies like the FCC also rely on Nielsen
24   audience measurement data?
25   A.   I think anybody with an interest in

364

1   television is probably relying on Nielsen data.
2   Q.   And, in fact, Nielsen is built into
3   FCC rules, that's how much they rely on it,
4   correct?
5   A.   I'm not an expert on that, so I'm
6   going to -- I'm going to not answer on that
7   one. But, yes, it would not be unexpected
8   that, again, if there was an interest in terms
9   of what's going on with television usage, that,
10   in fact, they would be using Nielsen data.
11   Q.   And do you know if broadcasters
12   request data from Nielsen to perhaps show
13   compliance with or ask for waivers from certain
14   FCC local ownership rules?
15   A.   It wouldn't surprise me, but at the
16   same time I couldn't answer on that.
17   MS. NYMAN: Thank you. No further
18   questions.
19   JUDGE BARNETT: Ms. Plovnick,
20   redirect?
21   MS. PLOVNICK: I just have a couple
22   questions.
23   REDIRECT EXAMINATION
24   BY MS. PLOVNICK:
25   Q.   First, Mr. Lindstrom, you were asked a

365

1   couple of questions about which stations that
2   Nielsen was asked to provide local ratings data
3   for. And I wanted to direct your attention to
4   your written testimony, Exhibit 8001, at page
5   7, and see if that refreshes your recollection
6   about which stations the local ratings data was
7   provided for. And look at page 7 under letter
8   C.
9   A.   Well, it is consistent with what I
10   said. I just don't know what the stations are.
11   We were provided with a list of stations. We
12   produced the analysis on those stations that
13   had been provided to us. And I don't off the
14   top of my head recall which those stations
15   were.
16   Q.   You don't recall the call letters of
17   the stations?
18   A.   That's correct.
19   Q.   But is your recollection refreshed
20   about who provided you the list of stations?
21   A.   Yes, it is.
22   Q.   And who was that?
23   A.   That was selected by Dr. Gray.
24   Q.   Thank you. Now, one other question I
25   had for you is your written rebuttal testimony

366

1   in this proceeding, was that -- I'm sorry,
2   written direct testimony, which is
3   Exhibit 8001, was that -- that was dated in
4   August of 2016; is that correct?
5   A.   That's correct.
6   Q.   Do you recall when the Judges' order
7   reopening the record in this proceeding was
8   issued?
9   A.   It was 2016. I don't recall what the
10   date was.
11   Q.   Does May 4th, 2016 sound correct?
12   A.   That would sound correct.
13   Q.   So the period of time that MPAA had to
14   work with Nielsen to get additional data, if we
15   wanted to present it, would have been between
16   May 4th, 2016 and August of 2016?
17   A.   That is correct.
18   Q.   How long is that?
19   JUDGE BARNETT: We can do that.
20   THE WITNESS: Three months, I would
21   say.
22   BY MS. PLOVNICK:
23   Q.   Thank you, Mr. Lindstrom. I have no
24   further questions on redirect.
25   MR. BOYDSTON: Just one.

367

1   JUDGE BARNETT: Yes.
2   RECROSS EXAMINATION
3 BY MR. BOYDSTON:
4   Q.   Mr. Lindstrom, do you know whether or
5 not cable system operators generally order
6 Nielsen data for their own purposes?
7   A.   They do quite frequently and quite
8 extensively. Beyond that, it is difficult to
9 answer that question pretty broad one but, yes,
10 cable operators do buy the Nielsen data. They
11 buy the local market books. And they do their
12 own versions of custom data as well.
13   Q.   Does that include cable system
14 operators that do not have local advertising on
15 their systems?
16   A.   I couldn't answer who it was. It is
17 hard to imagine too many cable operators
18 without local advertising available, so it is a
19 difficult question to answer, but there are
20 loads of reasons beyond simply ad sales as I
21 noted before.
22   MR. BOYDSTON: Nothing further.
23   JUDGE BARNETT: Thank you. Thank you,
24 Mr. Lindstrom. You may be excused.
25   And we will take a 45-minute break for

368

1 lunch today. That will put us at 12:55.
2 Thanks.
3   (Whereupon, at 12:10 p.m., a lunch recess
4 was taken.)
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

369

1   AFTERNOON SESSION
2   (1:03 p.m.)
3   JUDGE BARNETT: Good afternoon.
4 Mr. Olaniran and Dr. Gray, please remain
5 standing. Everyone else, you may be seated.
6 Whereupon--
7   JEFFREY GRAY,
8 having been first duly sworn, was examined and
9 testified as follows:
10   JUDGE BARNETT: Before we begin, do
11 you have a citation for us?
12   MS. PLOVNICK: I had just given it to
13 my co-counsel.
14   JUDGE BARNETT: Okay.
15   MR. OLANIRAN: I was just about to
16 give it to you. It's 69 Federal Register 23821
17 and 23822, I think, is the pinpoint cite.
18   JUDGE BARNETT: Okay.
19   MR. OLANIRAN: And it's dated April
20 30th of 2004.
21   JUDGE BARNETT: Thank you.
22   MR. OLANIRAN: And that was a vacation
23 by both the Register and the Librarian.
24   JUDGE BARNETT: Thank you very much.
25 //

370

1   DIRECT EXAMINATION
2 BY MR. OLANIRAN:
3   Q.   Thank you. Good afternoon, Dr. Gray.
4 Would you please state your name for the record
5 and spell it.
6   A.   Jeffrey Gray, G-r-a-y.
7   Q.   And would you please briefly summarize
8 your educational background.
9   A.   Yes. I have a BA in economics from
10 the University of California at Santa Cruz and
11 a Ph.D. in economics from the University of
12 Pennsylvania.
13   Q.   And where do you work?
14   A.   Analytics Research Group LLC.
15   Q.   And what is your position at Analytics
16 Research Group?
17   A.   I'm president. I founded the company
18 about five years ago.
19   Q.   Okay. And what does Analytics
20 Research Group do?
21   A.   Well, we provide consulting services
22 to government agencies, private companies on a
23 consulting basis, as well as -- I should say an
24 advisory basis as well as those involved in
25 regulatory and litigation disputes, and provide

371

1 expert economic services and statistics
2 services.
3   Q.   Okay. And prior to Analytics Research
4 Group, where were you?
5   A.   I was with Deloitte Financial Advisory
6 Services, LLP.
7   Q.   And what did you do at Deloitte?
8   A.   I was the -- their national leader of
9 economic and statistical consulting.
10   Q.   And what did you do specifically while
11 you were at Deloitte?
12   A.   Many things. Many sort of leadership
13 responsibilities and administrative
14 responsibilities, but from my perspective, the
15 most important role was client service, which
16 is analogous to what I'm doing now, which is
17 providing economics and statistical guidance
18 and insights to clients either on an advisory
19 basis or those involved in regulatory and
20 litigation disputes.
21   Q.   Okay. And prior to Deloitte, where
22 did you work?
23   A.   I was with another consulting company
24 called Huron Consulting Group, where I was
25 their leader of economic and statistical

373

1   A.   I do.
2   Q.   And could you describe those briefly
3 to the Court if you would.
4   A.   I was a tenured track as a professor
5 at University of Illinois, Urbana-Champaign,
6 and I also taught at the University of
7 Pennsylvania.
8   Q.   And have you previously testified
9 before this body as an expert in your area of
10 specialty, in the areas of specialty you just
11 mentioned?
12   A.   Yes, I have.
13   Q.   Okay. And in what proceedings were
14 those?
15   A.   I think I'll get them all. There was
16 the 2000 to 2003 cable Phase II. Then there
17 was the original version of this, which was the
18 2000 to 2009 satellite. I should say the 1999
19 to 2009 satellite, 2004 to 2009 cable. It was
20 consolidated. Then the allocation phase of the
21 2010 to 2013 cable.
22   Q.   And in each of those proceedings, were
23 you qualified as an expert in the subject
24 matter of your specialty?
25   A.   Yes, I was.

372

1 consulting.
2   Q.   And so how would you -- and how would
3 you describe the subject matter -- the subject
4 matter of your specialty?
5   A.   I would say economics, statistics, and
6 intersection of those two, which is
7 econometrics.
8   Q.   And in what types of industries have
9 you applied that expertise?
10   A.   Oh, a variety. I'll just name a few.
11 It's transportation, construction, cable
12 industry, newspaper industry, music, and I
13 could go on. It's -- you know, one could go to
14 our website and take a look.
15   Q.   And do you have any publications in
16 peer-reviewed journals?
17   A.   Yes, I do.
18   Q.   And would you mention a few of those?
19   A.   In terms of the journals, well,
20 there's the economic -- I'm sorry, the American
21 Economic Review, the Journal of Human
22 Resources, Population Research and Policy
23 Review.
24   Q.   And do you have any teaching
25 experience?

374

1   Q.   And do you provide additional detail
2 of your experience in any submission in this
3 proceeding?
4   A.   Yes, in my written direct statement.
5 It should be appendix -- attached as
6 appendix -- I believe Appendix A.
7   MR. OLANIRAN: Your Honor, I offer
8 Dr. Gray as an expert in the field of
9 economics, statistics, and econometrics.
10   MR. BOYDSTON: No objection.
11   MR. MacLEAN: No objection.
12   JUDGE BARNETT: Dr. Gray is so
13 qualified.
14   MR. OLANIRAN: Thank you.
15 BY MR. OLANIRAN:
16   Q.   Dr. Gray, what were you asked to do in
17 this proceeding?
18   A.   I was asked to propose an allocation
19 methodology for the 2000 to 2009 satellite
20 royalty fund and the 2004 to 2009 cable
21 satellite fund and then calculate associated
22 recommended royalty shares based upon that
23 methodology.
24   Q.   Royalty shares for the benefit of
25 which parties?

375

1   A.   Yeah, I should say within the Program
2 Suppliers category.
3   Q.   And for --
4   A.   And for the benefit of the copyright
5 owners of the programming that were
6 retransmitted.
7   Q.   And who were the parties within the
8 Program Suppliers category?
9   A.   In terms of the two that -- IPG and
10 MPAA.
11   Q.   Thank you. And did you prepare a
12 written report of your findings?
13   A.   I did.
14   Q.   You have -- you should have a binder
15 in front of you, a black binder with orange
16 cover.
17   A.   Yes.
18   Q.   That says volume 1. Would you please
19 go to the exhibit premarked as 8002.
20   A.   I'm there, yes.
21   Q.   And would you please identify that
22 document.
23   A.   That's the testimony of Jeffrey
24 S. Gray, Ph.D., August 22nd, 2016.
25   Q.   Now, is this the written report that

376

1 you referred to earlier as -- that you prepared
2 for the purpose of this proceeding?
3   A.   Yes, it is.
4   Q.   Okay. And is that -- and were you
5 responsible for the preparation of
6 Exhibit 8002?
7   A.   Yes, I either prepared the entire
8 exhibit or directly supervised those who did
9 the work supporting it.
10   Q.   Do you have any corrections or
11 additions to the exhibit?
12   A.   I have one correction, which is the
13 Table 4 on page 29.
14   Q.   Okay.
15   A.   And this is for the year 2008
16 satellite for the distant viewing shares.
17 After filing this testimony, there was a claims
18 hearing ruling that changed -- that caused me
19 to rerun my calculations, and it impacted only
20 that single year for satellite where the MPAA's
21 share of viewing decreased from 99.79 to 99.78.
22 So it decreased by one one-hundredth of a
23 percentage point.
24   Q.   Thank you. And with that correction,
25 do you declare MPAA Exhibit 8002 to be true and

377

1 correct?
2   A.   I do, yes.
3   Q.   All right.
4   MR. OLANIRAN: Your Honor, I move for
5 admission of Exhibit -- Exhibit 8002.
6   MR. BOYDSTON: No objection.
7   MR. MacLEAN: No objection.
8   JUDGE BARNETT: 8002 is admitted.
9   (Exhibit Number 8002 was marked and
10 received into evidence.)
11   MR. OLANIRAN: Thank you.
12   JUDGE FEDER: Excuse me. Dr. Gray, in
13 that same table, how would you adjust the
14 confidence intervals?
15   THE WITNESS: They were not adjusted
16 to the second decimal point.
17   JUDGE FEDER: Okay.
18 BY MR. OLANIRAN:
19   Q.   Dr. Gray, you stated earlier that you
20 were asked to essentially propose a calculation
21 for allocation of shares within the Program
22 Suppliers category.
23   Do you recall that?
24   A.   I do, yes.
25   Q.   And you did this for both cable and

378

1 satellite; is that correct?
2   A.   That is correct, yes.
3   Q.   Okay. And what was the basis of --
4 what was the -- what basis or standard did you
5 find to be applicable to the task that you were
6 asked to do?
7   A.   The standard relative market value.
8   Q.   And why is that?
9   A.   Well, historically, that's been the
10 accepted standard. Also the Supreme Court also
11 accepted, you know, fair market value as an
12 acceptable measure.
13   Q.   Okay. And what in your opinion is the
14 appropriate measure of relative market value in
15 the context of this proceeding?
16   A.   In this context, viewing.
17   Q.   And why do you say that?
18   A.   Well, I go in detail in my written
19 testimony, but at a high level, customers
20 subscribe to cable systems or satellite systems
21 to view programming, and so cable systems and
22 satellite systems insofar as they're net
23 revenue maximizers are interested in attracting
24 and retaining customers, so they're interested
25 in assembling programming that bears -- their

379

1 customers and potential subscribers will want
2 to view. So viewing provides a -- sort of a
3 clean, direct measure of relative value.
4   Q.   And did you use viewing to calculate
5 the relative market value of MPAA and IPG
6 programs?
7   A.   I did, relative viewing shares, yes.
8   Q.   Just at a very high level, what steps
9 did you undertake to make those calculations,
10 to calculate the relative shares for the
11 parties?
12   A.   Well, at a high level, I acquired
13 various data sets and then conducted a multiple
14 regression analysis to calculate distant
15 viewing for every program at issue in this
16 hearing, and then aggregated those percentages
17 up to calculate relative viewing shares.
18   Q.   Okay. And what data sources did you
19 rely on to calculate -- to make your
20 calculations?
21   A.   Broadly speaking, four data sources.
22 Data from Cable Data Corporation, or CDC; data
23 from Gracenote, which at the time was called
24 Tribune, there was an acquisition and they
25 changed their name from Tribune to Gracenote;

380

1 and then also the CRTC logs and various Nielsen
2 data.
3   Q.   Okay. And starting with the CDC data,
4 what information does the CDC data contain or
5 did the CDC data contain?
6   A.   Yeah. So the CDC data collects --
7 collected information from the SOAs, and it has
8 information regarding every broadcast signal
9 that was distantly retransmitted by a cable
10 system or by satellite system, two separate
11 data sets, one for cable and one for satellite.
12 And so each of those data sets would have the
13 call sign that was distantly retransmitted,
14 information about the call sign, the type it
15 was, you know, educational or independent, et
16 cetera, its location and the number of
17 subscribers it reached, and fees generated,
18 associated with that signal, among -- there
19 might be other information in there.
20   Q.   And what did you use that information
21 for in the works that you did?
22   A.   Most fundamentally, to construct a
23 sample of and draw a sample of stations that
24 were distantly retransmitted so I could measure
25 the distant viewing on those stations.

381

1   Q.   Okay. And with respect to the old
2 Tribune/Gracenote data, what information did
3 that data contain?
4   A.   Yeah -- and I apologize if I go back
5 and forth between Tribune and Gracenote. I'm
6 trying to get myself temporally correct. But
7 that has sort of rich data concerning
8 programming. So for -- so they were provided
9 the sample that I just discussed, and for each
10 of those stations that were distantly
11 retransmitted, they provided information on
12 every program that were on those stations. The
13 start time of the program, the duration of the
14 program, the title of the program, and if
15 applicable, the episode title, other
16 information like the program type, even
17 detailed information concerning the directors
18 and actors and so forth. It's a rich, detailed
19 program information.
20   Q.   And what did you use the Gracenote
21 data for?
22   A.   For a couple of purposes. One, well,
23 most fundamentally with program title, I was
24 able to identify whether or not the copyright
25 owner was represented by MPAA or by IPG. I

382

1 also used the Gracenote data to determine which
2 program was not compensable and not at issue in
3 this hearing or partially. That would be, in
4 the case of cable, network programming, and
5 also for both cable and satellite, programming
6 that was on WGNA and WGN that was not
7 simultaneously retransmitted.
8   And, finally, I used the
9 Gracenote/Tribune data as part of my regression
10 analysis to predict distant viewing on a
11 program-by-program basis.
12   Q.   And you also mentioned the CRTC data.
13 What did you use the CRTC data for?
14   A.   Yes, the CRTC logs has information
15 regarding programming on Canadian stations and
16 whether or not the program was of Canadian
17 origin. And my understanding is such programs
18 are not at issue in the Program Suppliers
19 category. They belong to the CCG, the Canadian
20 Claimants group category. So I excluded those
21 from the analysis.
22   Q.   Okay. Now, you mentioned, I think,
23 that you used Nielsen data sets. What are the
24 Nielsen data sets that you used?
25   A.   For this particular testimony, three

383

1 data sources, the Nielsen diary data from 2000
2 to 2003 for cable. Satellite also had part of
3 the first quarter of 2004.
4   Then we also obtained the 2008 and
5 2009 for both cable and satellite distant
6 viewing data based upon their National People
7 Meter data. And then the third data source
8 from Nielsen was the local ratings data for
9 each year, from 2000 through 2009.
10   Q.   And just to be clear, the 2000-2003
11 distant viewing diary data, you had separate
12 data sets for cable and satellite; is that
13 correct?
14   A.   Yes. Well, both for cable and
15 satellite. And, again, in the case of
16 satellite, it goes into 2004.
17   Q.   And what did you use the instant data
18 for?
19   A.   Well, with Nielsen, I had measures of
20 distant viewing so I -- for 2000 through 2003
21 and, again, for satellite for part of 2004,
22 then now also for 2008 and 2009, for 2008 and
23 2009 I had it for 24 hours a day, 7 days a
24 week, 12 months a year for every program on my
25 sample of stations.

384

1   And then for 2000 through 2004, just
2 those during the sweeps weeks. So what I did
3 is performed a regression analysis to estimate
4 the relationship between that handful of
5 variables that I discuss in my direct testimony
6 and distant viewing and ultimately estimate
7 distant viewing on a quarter-hour by
8 quarter-hour basis for each of the royalty
9 years.
10   Q.   And you mentioned sampling a little
11 bit ago. What type of sampling technique did
12 you employ to select the station in your
13 sample?
14   A.   Stratified random sample where those
15 signals that were distantly retransmitted to a
16 greater number of subscribers were selected
17 with higher probability.
18   Q.   And did you have stratified random
19 samples both for the satellite data set and the
20 cable data set?
21   A.   Yes, both for satellite and for cable,
22 and I should say for the years 2007 through
23 2009 satellite, because there were so few
24 distantly retransmitted signals, I used the
25 entire population of those signals for

385

1 satellite. So there was no sample applied to
2 satellite for 2007 through 2009.
3   Q.   And what was the basis for the
4 stratification? What was the metric you used
5 for stratifying?
6   A.   The number of distant subscribers
7 reached by the signals.
8   Q.   And why did you use that?
9   A.   Well, in this context, twofold. One
10 is I'm interested in measuring distant viewing,
11 which is a relatively uncommon phenomenon. So
12 I wanted to make sure to get those particular
13 signals that had many subscribers, therefore,
14 be more likely to capture these fleeting
15 instances of viewing on a distant basis. And
16 so that's done by selecting those stations,
17 polling subscribers to create a probability.
18   Also, as we talked about in the 2000
19 to 2003 hearing, the diary data was based upon
20 a non-random sample. At the time we called it
21 the Kessler sample because Marsha Kessler of
22 MPAA constructed it, where it was just the --
23 those stations with the greatest number of
24 subscribers were selected.
25   And so because that's the only distant

386

1 viewing data that we had for those years, I
2 wanted to make sure to capture as many of those
3 stations as possible. So, therefore, stations
4 with greater subscribers I picked with, you
5 know, greater certainty.
6   Q.   Okay. And I think you just
7 mentioned -- you mentioned this briefly, but
8 let me just make sure I'm clear on this.
9   How did you identify what programming
10 was represented by MPAA as opposed to IPG?
11   A.   I was provided title lists through
12 counsel.
13   Q.   And you made a correction on the basis
14 of the claims resolution ruling, also, did you
15 not?
16   A.   Correct. There were multiple, but I
17 should say I received multiple lists from
18 counsel because there would be a claims
19 resolution hearing that would adjust the list,
20 both for MPAA and for IPG. And then there was
21 a subsequent decision that I learned via
22 counsel that caused -- that I think there was
23 one claimant that IPG got credit for, which
24 caused their 2008 satellite share to increase.
25   Q.   Now, keeping all of the different data

387

1 sets that you just described in mind, could you
2 please describe specifically the process that
3 you undertook to calculate the allocation
4 results that you have, that you presented in
5 this proceeding.
6   A.   Sure. I'll do it reasonably
7 specifically, since the Judges have heard this
8 before. So what I did is calculate a
9 mathematical relationship, correlations, if you
10 will, between local ratings and distant
11 viewing, as well as -- this is important -- the
12 time of day, quarter, quarter-hours, you know,
13 nice quarter-hours in the day, and distant
14 viewing, and the number of subscribers reached
15 by or the number of subscribers who had access
16 to that particular program and distant viewing
17 of that program.
18   And then, finally, program type,
19 whether it's a cartoon or a movie or a, you
20 know, instructional program, and, again,
21 distant viewing.
22   And, finally, I had a control variable
23 for the sort of total fees paid by all CSOs or
24 all satellite systems in those two separate
25 regressions.

388

1   Q.   And then you --
2   A.   I calculated a mathematical
3 relationship. And then once I had that
4 mathematical relationship, I went back and
5 estimated distant viewing on a quarter-hour by
6 quarter-hour basis for each royalty year, both
7 for cable and for satellite.
8   And for both cable and satellite, I
9 estimated WGN separately from the rest because
10 WGN was a bit of an outlier in terms of just
11 the level of distant viewing and the number of
12 subscribers.
13   And in order to get precise estimates,
14 it was necessary to do those two regressions
15 separately. I did that for cable and for
16 satellite. And once I established that
17 correlation, made those estimates, I predicted
18 distant viewing on a program-by-program basis.
19   And I knew which ones were MPAA
20 represented and which ones were IPG
21 represented, added those up and calculated the
22 percentage of viewing of those two types of
23 programs that were MPAA and what percentage was
24 IPG. And those were my viewing shares and,
25 therefore, my recommended royalty shares.

389

1   Q.   Thank you. Did you describe your
2 work -- your analysis in detail also in
3 Exhibit 8002?
4   A.   Certainly in more detail, yes.
5   Q.   Okay. And let's gee to Table 1 of
6 page 8002, please.
7   A.   Yes.
8   Q.   I'm sorry, Exhibit 8002, page 23,
9 Table 1.
10   A.   Yes.
11   Q.   And could you please describe the
12 information you have in that table?
13   A.   Yes. This is just a measure of the
14 number of unique broadcasts that were
15 represented by either MPAA or by IPG for each
16 royalty year for cable and satellite, in terms
17 of unique titles. And I define a unique title
18 at the episodic level, so the Simpsons episode
19 33 would be a separate title, separate
20 programming than Simpsons episode 89.
21   And so you will see, for example, in
22 2004, defining unique programs that way, MPAA
23 had over 29,000 compensable programs, 29,342;
24 whereas IPG had 928.
25   I'll pick another -- I'll stick with

390

1 2004 for satellite. Again, a similar order of
2 magnitude difference. There were 33,662 unique
3 compensable programs represented by MPAA and
4 643 represented by IPG. And you'll see the
5 relationship between IPG and MPAA in terms of
6 the relative magnitude is relatively similar
7 across each royalty year.
8   Q.   Okay. Can we go to Table 2 on page 24
9 of Exhibit 8002.
10   A.   Yes.
11   Q.   And that's the table titled MPAA- and
12 IPG-Claimed Program Retransmission. Could you
13 describe what that information is.
14   A.   Yeah, so that takes the number of
15 unique programs and shows how many times were
16 they retransmitted throughout the year. So my
17 example of the Simpsons, if Simpsons were --
18 was retransmitted seven times, that would count
19 as seven programmed retransmissions.
20   And so -- and you'll see a similar
21 ratio, in fact, a greater ratio of MPAA
22 relative to IPG reflecting the fact that MPAA's
23 unique programs are retransmitted more often.
24 So, for example, in 2004, we have 526,835 of
25 MPAA retransmissions for cable and 7,821 such

391

1 retransmissions represented by IPG. Even a
2 greater order of magnitude difference in
3 satellite. For 2004, just as an example,
4 555,310 represented retransmissions by MPAA and
5 5,366 represented by IPG.
6   And this, again, is showing just the
7 indirect volume measure of the order of
8 magnitude differences between the number of
9 programs represented by MPAA and IPG that were
10 on stations that were retransmitted.
11   Q.   And let's go to Table 3 on page 25 of
12 your testimony. Could you please describe the
13 information that's contained in that table.
14   A.   And this is one that most people are
15 familiar with, which just takes Table 2 and
16 calculates the number of minutes of those
17 programs. So if a program was 30 minutes long,
18 it would count as 30 as opposed to one. If it
19 were 60 minutes long, it would count as 60.
20   And you'll see the total volume of
21 minutes of MPAA programs is demonstrably higher
22 than that of IPG for both cable and satellite
23 in each royalty year. I'm sticking with 2004.
24 You know, we have -- I'm not going to read the
25 numbers for the sake of the court reporter --

392

1 but close to 21 million minutes of MPAA volume
2 of retransmitted programming; and IPG, less
3 than 300,000.
4   Satellite's even greater difference in
5 terms of percentages. MPAA slightly over 26
6 million minutes of presumably valuable
7 retransmitted programming and IPG a little over
8 166,000 retransmitted minutes.
9   Q.   And can you go to page 29 of your
10 testimony, Table 4.
11   A.   Yes.
12   Q.   And could you please describe what
13 information is contained in Table 4.
14   A.   So Table 4 contains the viewing shares
15 that I described earlier, how they were
16 calculated. And they show that for cable, the
17 viewing shares varied from a low of
18 99.28 percent in 2008 for MPAA's share of
19 viewing to a high of 99.60 percent in 2004 and
20 2005.
21   And if you include network
22 programming, it gets even higher. In the case
23 of satellite, where there was a low of
24 99.54 percent in the year 2000 and a high of
25 99.87 percent in 2004.

393

1   Q.   Thank you. Dr. Gray, are you familiar
2 with the order entered by the Judges on May 4th
3 of 2016 in this docket?
4   A.   Yes, I am.
5   Q.   And what is your general understanding
6 of that order?
7   A.   Well, the May 4th order, the Judges
8 found that no party submitted information
9 sufficient to allow a final distribution of the
10 royalty funds either for cable or for
11 satellite, so they reopened the record and
12 requested that the parties submit additional
13 evidence.
14   Q.   And what specifically is your
15 understanding of what the Judges directed MPAA
16 to do, specifically?
17   A.   In the case of MPAA, they asked either
18 for contemporaneous data to be offered,
19 implicitly contemporaneous distant viewing
20 data, or absent that, evidence to demonstrate
21 that such contemporaneous data were not
22 necessary.
23   Q.   And so as between your original
24 testimony in this docket and your present
25 testimony, is there a methodological difference

394

1 between what you did in the first testimony and
2 this testimony?
3   A.   Yes.
4   Q.   And what is that difference?
5   A.   Well, in both cases, I employed
6 multiple regression analysis to estimate
7 distant viewing on a program-by-program,
8 quarter-hour by quarter-hour basis.
9   But the regression specification I
10 modified in the current testimony pursuant to
11 the order's footnote number 5, where the Judges
12 identified that there was a dispute concerning
13 which base year to use in the -- projecting
14 when I did not have distant viewing data.
15   And I modified my regression to
16 resolve that dispute, where rather than have
17 indicated variables for the years where I had
18 information and use 2000 as a base year to
19 control for annual differences in total distant
20 viewing, instead I used the total fees paid,
21 either by cable systems or by satellite
22 systems, to control for annual differences.
23 And that resolved, in my opinion, the dispute.
24   Q.   And, again, as between your initial
25 testimony and your present testimony, is there

395

1   a difference between the data that you used in
2   that proceeding versus the present proceeding?
3   A.   Yes.
4   Q.   And what is that difference?
5   A.   This data was augmented with the
6   2008-2009 Nielsen distant viewing data based
7   upon their National People Meter data.
8   Q.   And is that 2008-2009 cable and --
9   separate cable and satellite data?
10   A.   Yeah, I'm sorry, distant viewing both
11   for cable -- separate data set, one for cable
12   and one for satellite. And so this was done to
13   respond to the Judges' wish for contemporaneous
14   distant viewing data.
15   Q.   Okay. And just by the way, in terms
16   of the number of observations that you had in
17   the first -- in your first testimony versus
18   your present testimony, can you give us an idea
19   of what the difference is?
20   A.   Well, in terms of the number of
21   observations of distant viewing --
22   Q.   Yes.
23   A.   -- so in the first matter when I --
24   only based upon the diary data from 2000 to
25   2003, and, again, in the case of satellite into

396

1   2004, but I'll say for the case of cable, it's
2   a similar order of magnitude for satellite,
3   there was 1.68 million instances of information
4   in the diaries, 1.68 million quarter-hours.
5   And then once I augmented that with
6   the 2008 to 2009 distant viewing data for
7   cable, the 1.68 million observation increased
8   to 3.86 million observations.
9   Q.   And did you find this additional
10   analysis, additional data to be helpful overall
11   to your report -- to your regression model?
12   A.   I probably said this before. More
13   data is better, almost always, if it's accurate
14   and reasonable and correct. And in this case,
15   it is. So, yes, therefore, I have more data
16   and I am more comfortable with my results.
17   Q.   And with regard to the data for 2004
18   through 2007, you did not -- you didn't have
19   any data for that period provided by Nielsen;
20   is that correct?
21   A.   That's correct. It's my understanding
22   that that data was nearly impossible to attain.
23   Q.   Okay. And what impact would you say
24   that the absence of that data had on your -- on
25   your regression model overall?

397

1   A.   I would not expect it to have any
2   impact. I did not expect even adding the 2008
3   to 2009 data to have much of an impact on my
4   regression results. I testified to that back
5   at the prior hearing.
6   Q.   And even with the absence of the '04
7   through '07 data, do you still consider your
8   analysis reliable?
9   A.   Yes, I do.
10   Q.   But for the entire period, you did
11   have local ratings for -- from 2000 through
12   2009; is that correct?
13   A.   That's correct, yes. So for
14   satellite, I would use the 2000 through 2009.
15   And then for cable, it would be the 2004
16   through 2009 to, again, once those mathematical
17   relationships were estimated, I was able to
18   estimate distant viewing on a quarter-hour by
19   quarter-hour basis.
20   Q.   Okay. And did you compare your
21   viewing estimates from your initial testimony
22   to the viewing estimates you had presented in
23   this proceeding?
24   A.   I did. I discussed them in the
25   testimony, and I believe we also have a

398

1   demonstrative.
2   Q.   Okay.
3   MR. OLANIRAN: May I approach, Your
4   Honor?
5   JUDGE BARNETT: Yes.
6   BY MR. OLANIRAN:
7   Q.   Dr. Gray, you have a demonstrative in
8   front of you. Can you please describe
9   generally what the demonstrative represents?
10   A.   Yes. The purpose of this
11   demonstrative is to show side-by-side the
12   initial estimates of viewing shares and,
13   therefore, recommended royalty shares in my
14   testimony just relying upon the 2000 through
15   2003 diary data.
16   And that would be for cable initial in
17   the second column and satellite initial in the
18   fourth column. And those are juxtaposed --
19   Q.   Juxtaposed?
20   A.   Thank you -- take 3 -- to the results
21   when I also include the 2008 to 2009 distant
22   viewing data from Nielsen. And I refer to that
23   as cable updated and satellite updated.
24   Q.   And, in general, how would you
25   describe the results from the original

399

1 testimony and the testimony you've presented in
2 this proceeding -- how would you characterize
3 the comparison and estimates?
4   A.   I would view the estimates as
5 reasonably similar. For example, in 2004 --
6 and this, again, is MPAA's share of distant
7 viewing -- the estimate increases from 99.59 to
8 99.60 when also using the contemporaneous
9 distant viewing data.
10   And then for satellite, in 2004,
11 actually there is no impact. The satellite
12 estimate remains at 99.87 with or without the
13 additional contemporaneous data.
14   And overall on average, the cable --
15 MPAA distant viewing share measure increases
16 from 99.39 percent to 99.45 percent. And for
17 satellite, MPAA's viewing share decreases
18 slightly from 99.73 percent to 99.71 percent.
19   Q.   Thank you. And does your observation
20 regarding the comparisons comport with your
21 expectations?
22   A.   Yes.
23   Q.   And why is that?
24   A.   Because even based upon the 2000-2003
25 analysis, that was -- estimated a relationship

400

1 between distant viewing and a host of factors,
2 local ratings being one of them, but local
3 ratings, time of day, program type, and then
4 also total fees paid.
5   And that mathematical relationship I
6 did not expect to change much over time,
7 particularly to the advantage or disadvantage
8 to one party. So I would have been very
9 surprised if the numbers had changed
10 dramatically. So these comported with my
11 expectations.
12   Q.   Okay. And so what is your opinion
13 with regard to whether or not your updated
14 analysis followed the directive of the May 14,
15 2016 order by the Judges?
16   A.   Well, the Judges asked for
17 contemporaneous data, and we or I augmented my
18 study with contemporaneous data, so I would
19 like to think it was responsive.
20   MR. OLANIRAN: I have no further
21 questions, Your Honor.
22   JUDGE BARNETT: Thank you.
23   MR. OLANIRAN: Thank you.
24   JUDGE BARNETT: Mr. Boydston?
25   MR. BOYDSTON: Thank you, Your Honor.

401

1   CROSS-EXAMINATION
2 BY MR. BOYDSTON:
3   Q.   Good afternoon, Dr. Gray. I'm Brian
4 Boydston. I represent Independent Producers
5 Group in this matter.
6   A.   Good afternoon, counsel.
7   Q.   Just touching on the conclusion of
8 your direct testimony there, in your view did
9 you -- do you believe that your initial
10 testimony in the first round of this proceeding
11 was flawed in any way?
12   MR. OLANIRAN: Objection, vague.
13   JUDGE BARNETT: Sustained.
14 BY MR. BOYDSTON:
15   Q.   You said you were aware of the Judges'
16 May 5th, 2016 order on the first round of this
17 proceeding, correct?
18   A.   May 4th, yes.
19   Q.   Thank you, May 4th. And you were
20 familiar with the statements that the Judges
21 made in terms of their view of the methodology
22 that you proposed, correct?
23   A.   I do recall, yes.
24   Q.   Did you agree with that assessment?
25   A.   I did not expect the results to

402

1 change, so I didn't think additional
2 acquisition of data at a cost was necessary,
3 but certainly I think it provided -- I guess it
4 underlined the robustness of the results
5 insofar as the results are similar to those
6 that were presented in the initial testimony.
7   Q.   Okay. So you don't believe that the
8 -- and from the chart that we were just looking
9 at, the results didn't change much between your
10 work in the first round of this proceeding and
11 this proceeding, correct? They're fairly
12 similar, very similar?
13   A.   I would call them reasonably similar.
14   Q.   Right, right. And so -- and you say
15 that met with your expectations, that you
16 didn't expect the use of the additional data
17 that you had would really change your
18 conclusions much, correct?
19   A.   Yeah, no, I testified that -- to that
20 fact in the prior live proceeding and the
21 results comported with my expectations.
22   Q.   Okay. What I think I'm asking,
23 though, is I understand what you testified to
24 in the prior proceeding. My understanding is
25 that you didn't expect that the addition of

403

1 additional information from 2008 and 2009 --
2 you didn't expect that would change your
3 conclusions much and, in fact, it didn't, did
4 it?
5   A.   That's correct, I did not expect it to
6 and they did not.
7   Q.   Okay.
8   JUDGE STRICKLER: Why did you
9 anticipate that your conclusions would not
10 change?
11   THE WITNESS: Because, you know, the
12 multiple regression estimated such -- was so
13 precise, even using the 2000 to 2003, and so
14 the only way it would change is twofold. One
15 is, you know, there's just a different
16 relationship between local ratings and time of
17 day and all these factors and distant viewing,
18 coupled with that sort of mitigated or
19 magnified relationship sort of impacting the
20 parties differently. So I think it would have
21 been somewhat unusual for that to happen, in my
22 sort of a priori expectation. Because what I'm
23 trying to do, again, is predict distant viewing
24 and it's possible, for example -- and I believe
25 Your Honor asked me this specifically, is it

404

1 theoretically possible the relationship could
2 change over time? Yes, it was a priori, and
3 because of that we're here today. And so I
4 think it was certainly worth checking.
5   And the other thing that was worth
6 checking is there were certain issues with the
7 2000 to 2003 data that we discussed prior, and
8 I think it was reassuring to get the 2008 and
9 2009 data that did not have the same issues.
10 And, again, given the robustness of the
11 results, I think it just underscores the
12 reliability.
13   JUDGE STRICKLER: How about the
14 possibility that the programs themselves would
15 have changed over the years? Would that have
16 -- would you have expected that to change your
17 results at all?
18   THE WITNESS: Well, the programs did
19 not change between, you know, the prior
20 analysis and this analysis. If the programs
21 did change, it could certainly change my
22 results, but, you know, they are the same
23 programs. All that we did was get additional
24 viewing measures for 2008 and 2009.
25   JUDGE STRICKLER: Thank you.

405

1 BY MR. BOYDSTON:
2   Q.   Did the -- did you use the 2008-2009
3 data in a fundamentally different way than you
4 used the 2000-2003 data for this proceeding?
5   A.   No, I did not.
6   Q.   And so, essentially, it was pretty
7 much the same methodology, just adding more
8 data?
9   A.   With the exception as I described
10 during the direct questioning, I also changed
11 the specification to remove the base year
12 ambiguity issue.
13   Q.   And that was in the original -- in
14 your original effort, the baseline was the year
15 2000, correct?
16   A.   Correct.
17   Q.   And for this analysis, you used as a
18 baseline -- I believe what you said was --
19 well, let me look at my notes. Or maybe you
20 could just tell me. I think it was total fees
21 paid?
22   A.   Yes.
23   Q.   And can you explain that to me in more
24 detail? I mean, I have a general idea of what
25 total fees paid means, but I'm not sure if I

406

1 know precisely what you meant by that.
2   A.   Yeah. Well, what I mean is in the
3 context of cable it would be for all the cable
4 systems distantly retransmitted for each year,
5 the total fees that they paid. And that's,
6 again, to measure annual differences, all else
7 equal, in distant viewing.
8   Q.   Okay. Would you agree with me that
9 fees paid tends to track number of subscribers
10 in a general sense?
11   A.   Yes. Yes, in terms of on a CSO by CSO
12 and a satellite system by satellite system
13 basis, yes, but, again, the measure I did went
14 before all cable systems and all satellite
15 systems.
16   Q.   No, I understand. I was just -- you
17 answered the question I had. Thank you.
18   Now, let me turn to the CRTC data for
19 a minute. This data allowed you to essentially
20 figure out which programs were
21 Canadian-originated, correct?
22   A.   Correct.
23   Q.   Excuse me, which transmissions were?
24   A.   Which broadcasts and therefore
25 retransmissions, yes.

407

1   Q.   Thank you. Why -- who instructed you
2 to make that -- that calculation, if you will,
3 or that operation?
4   A.   I've been doing that for many years
5 now. Ultimately, it was a discussion with
6 counsel.
7   Q.   And so did you independently inquire
8 about the country of origin on your own? Did
9 you bring that up on your own or were you told
10 to do that?
11   A.   I was told that if the country of
12 origin is Canadian, it therefore belongs in the
13 CCG category, not Program Suppliers category.
14 I do not define the categories. I'm told what
15 the definitions are.
16   Q.   Okay. I assume that you didn't review
17 the copyright registrations associated with
18 those Canadian -- what appear to be
19 Canadian-originated broadcasts, correct?
20   A.   That's correct.
21   Q.   And I presume that you didn't review
22 any contracts related to those
23 Canadian-originated broadcasts?
24   A.   I did not review any of the individual
25 contracts, no.

408

1   Q.   And so you're relying purely on the
2 CRTC information for that, correct?
3   A.   To identify programming that does not
4 belong in the Program Suppliers category of
5 those broadcasts airing on Canadian stations,
6 yes.
7   Q.   Okay. So if IPG were making a claim
8 on a -- for instance, a British Broadcasting
9 Corporation program such as The Weakest Link,
10 would it be accorded any value for its Canadian
11 broadcast based upon the fact that it was not
12 U.S.?
13   A.   Well, if it was Canadian, then it
14 would belong in the CCG category. If it was
15 non-U.S., it would still belong in the Program
16 Suppliers category.
17   Q.   Okay. Did -- were you instructed as
18 to whether or not those sorts of issues had
19 already been addressed in previous parts of
20 this hearing, in the claims part of this
21 hearing? To establish whether or not certain
22 programs should be in the -- in your analysis
23 or out or were you given any advice like that?
24   MR. OLANIRAN: Objection, vague.
25   JUDGE BARNETT: Sustained. Could you

409

1 break that down? I think that was a couple of
2 questions.
3   MR. BOYDSTON: I'm sorry. You're
4 right.
5 BY MR. BOYDSTON:
6   Q.   Did counsel instruct you whether or
7 not certain programs should -- whether or not
8 you should not calculate or use certain
9 programs in your calculations because of
10 country of origin? I think you said, as a
11 general matter, you were told that about
12 Canadian programs sometime ago, correct?
13   MR. OLANIRAN: Objection, privileged.
14   MR. BOYDSTON: Well, I'm just asking
15 about his prior testimony and now, today.
16   MR. MacLEAN: Your Honor, I'm also
17 going to object as vague. And if I could hear
18 the question with two fewer knots in it, that
19 might make it better.
20   JUDGE BARNETT: Try one more time,
21 Mr. Boydston.
22   MR. BOYDSTON: Sure, I will.
23 BY MR. BOYDSTON:
24   Q.   I believe you testified a few minutes
25 ago that you were instructed to -- with regard

410

1 to any Canadian-originated broadcast, that you
2 should use this CT -- excuse me, you should use
3 this CRTC data to excise those from your
4 analysis, correct?
5   A.   Yeah, I was told that such
6 programming, again, those airing on Canadian
7 stations that were of Canadian origin would
8 belong in the CCG category, not the Program
9 Suppliers category.
10   Q.   Okay. I think I've covered it. Thank
11 you.
12   Let's turn to your report.
13 Specifically, I want to look at Table 1, which
14 is right around paragraph 39.
15   JUDGE BARNETT: That would be page 23.
16   MR. BOYDSTON: Thank you, Your Honor.
17 BY MR. BOYDSTON:
18   Q.   And I'm actually focusing on the
19 language right above the table in which you
20 sort of sum up the table by saying there were
21 approximately 36 times as many MPAA-represented
22 unique compensable programs as IPG's on
23 stations distantly retransmitted by CSOs and
24 approximately 48 times as many MPAA as IPG on
25 satellite carriers.

411

1   Now, would you agree with me then -- I
2   had done this math and I'll represent to you I
3   think I did it competently on a calculator --
4   that just using those numbers, if the MPAA
5   cable material is 36 times the IPG material,
6   the IPG material, at least in terms of just
7   pure numbers of stations transmitted, would be
8   about 2.7 percent of all cable programs. Does
9   that sound -- is 136 roughly 2.7, fair to say?
10   A.   Likely. I can't quite do that in my
11 head, I confess, but it sounds roughly right.
12 But, again, that's of unique compensable
13 programs, not of distantly retransmitted
14 programs in total.
15   Q.   Okay. And then 1/48th would be -- I
16 calculated 1/48th as 2.04 percent. Does that
17 sound in the ballpark?
18   A.   Yes.
19   Q.   Okay. Now, looking at the table
20 itself for the 2000 satellite, if I -- when I
21 aggregated or, plain old terms, added the MPAA
22 figure and the IPG figure to get a total of
23 27,747, and then I divided that by the IPG
24 total of 969, I came up with a figure of
25 3.37 percent, i.e., that of the numbers

412

1   represented there, IPG's portion of it was
2   3.37 percent.
3   Does that sound roughly accurate to
4   you?
5   A.   That could be right, yes.
6   Q.   Okay. Now, let's turn to page 2 or,
7   excuse me, the next page, page 24, Table 2.
8   And here again focusing on the 2000 satellite
9   figure in that table, I again added up the two
10 of them and then divided that by the amount of
11 IPG material and came up with a figure of
12 1.8 percent, so that of that -- of those -- of
13 that total, 1.8 percent was IPG's.
14   Does that sound roughly accurate to
15 you?
16   A.   It could be, yes.
17   Q.   Now let's turn to page 41 and Table 3.
18 It's on the next one. Excuse me, page 25,
19 paragraph 41, Table 3. And this, as set forth
20 there, is basically a -- these are total
21 minutes of programming, correct?
22   A.   Correct, yes.
23   Q.   Okay. And looking at the 2000
24 satellite again, when I calculated IPG's share
25 of the total, it came out to 1.3 percent. Does

413

1   that sound within the realm of possibility?
2   A.   Well, that one I could check because
3   that should be in my report. You said 2000?
4   Q.   Yeah.
5   A.   Satellite? It looks like
6   1.28 percent.
7   Q.   Okay. I stand corrected. Thank you.
8   So according to your calculations, you
9   know, summing up these three metrics, we have
10 one at 3.37 percent, one at 1.8 percent, one at
11 almost 1.3 but not quite.
12   With regard to the actual numbers that
13 you come up with at the end, let's look at
14 Table 4 and compare that. And Table 4 is on
15 page 29.
16   And it looks like here -- it appears
17 that, in fact, your conclusion is that WSG is
18 entitled to just .46 percent of the satellite,
19 the 2000 satellite pool, correct?
20   A.   That's correct, that's based upon
21 viewing share. Those numbers you presented are
22 all essentially volume-based measures.
23   Q.   Right. So the -- your conclusion is
24 quite a bit lower than the -- what the sheer
25 volume would suggest --

414

1   A.   Yes.
2   Q.   -- on all three of those metrics?
3   A.   Yes.
4   Q.   And is it accurate that the
5   calculations that you conclude with here on
6   Table 4 are ultimately based on viewership;
7   since they're based on viewership, the average
8   IPG programming actually receives no more than
9   one-third of the viewership of the average MPAA
10 program, correct? That's essentially what
11 that's concluding?
12   A.   I'd have to do that calculation, but
13 that's probably about right.
14   Q.   Okay. Now, you discussed using
15 several different -- well, strike that. I'll
16 move on to that in a second.
17   Now, I believe that in all -- for each
18 of these tables and figures that we've just
19 been discussing, is it true that for each of
20 them, and if there is a situation in which both
21 IPG and the MPAA had a claim for a particular
22 program, that you always put that into the MPAA
23 pile for making your calculation?
24   A.   Following the claims ruling as
25 instructed by counsel, yes.

415

1 Q.   Okay. So -- and that -- you did that
2 not on your own volition, but because you were
3 instructed by counsel to do so?
4   MR. OLANIRAN: Objection, privilege
5 and relevance.
6   JUDGE BARNETT: The relevance
7 objection, Mr. Boydston, what's the relevance
8 here?
9   MR. BOYDSTON: Well, the relevance is
10 that because he was ordered to do that, it
11 massively has changed what the conclusions are.
12 If he -- and my next question is going to be
13 did you calculate what the results would be if
14 for each of those where there is a competing
15 claim, you accorded it to IPG?
16   JUDGE BARNETT: And you can get to
17 that without asking what counsel said to him.
18   MR. BOYDSTON: Oh, I just thought I
19 needed a foundation to say did he calculate the
20 one that way.
21   MR. OLANIRAN: If I may just elaborate
22 a little bit, Your Honor, on the relevance
23 issue. We have a claims ruling, and they have
24 been supplied with the discovery of what
25 Dr. Gray did with respect -- whether or not --

416

1 and the question can be whether or not he
2 complied with the claims ruling, not all this
3 other extraneous stuff with regard to the
4 rulings.
5   JUDGE BARNETT: I understand your
6 argument, but I think Mr. Boydston's questions
7 are legitimate. He's asking alternatives that
8 Dr. Gray considered and that's allowable.
9 Overruled.
10 BY MR. BOYDSTON:
11 Q.   Did you calculate what your -- what
12 the figures would be if for each situation
13 where there was a competing claim, you accorded
14 that to IPG instead of according it to MPAA?
15 A.   Not that I recall. I believe I just
16 followed the claims ruling.
17 Q.   Okay. Is there any particular reason
18 why you didn't do that?
19 A.   Because the Judges did not rule in a
20 different way.
21 Q.   How long would it take you to make
22 that calculation? I think it's probably a
23 fairly simple thing to do, correct?
24   MR. OLANIRAN: Objection, Your Honor.
25 Relevance.

417

1   JUDGE BARNETT: What's the relevance,
2 Mr. Boydston?
3   MR. BOYDSTON: I just want to
4 demonstrate that it's something that's very
5 quick and easy to do. That's my belief. But
6 my belief is my belief, and the fact is fact.
7   JUDGE BARNETT: Relevance objection is
8 sustained.
9   MR. OLANIRAN: Thank you.
10 BY MR. BOYDSTON:
11 Q.   Did you -- in preparation for this
12 proceeding, did you review the rebuttal
13 statements that IPG had filed addressing your
14 analysis in the first round of this proceeding?
15 A.   No.
16 Q.   In the first round of this proceeding,
17 did you review rebuttal statements that had
18 been prepared by IPG before testifying in the
19 first proceeding?
20 A.   Yes.
21 Q.   But you didn't do it again before this
22 one, I think you're saying.
23 A.   No.
24   JUDGE STRICKLER: No, you did not?
25   THE WITNESS: No, I did not.

418

1   JUDGE STRICKLER: Thank you.
2   THE WITNESS: Thank you.
3 BY MR. BOYDSTON:
4 Q.   Is it not true that there was
5 significant incidence of zero viewing in the
6 Nielsen diary data -- excuse me, let me start
7 over. Let me have a drink of water first.
8 That's part of my problem.
9   Is it accurate that there is a
10 significant zero viewing problem or issue with
11 the Nielsen distant diary data for 2000 to
12 2003? And that's pejorative. Let me start all
13 over again.
14   Is there a significant incidence of
15 zero viewing in the Nielsen distant diary data
16 for 2000 to 2003?
17 A.   Well, it depends how you define
18 "significant."
19 Q.   Would you define it as significant?
20 A.   I think there's a reasonably high
21 incidence of non-recorded viewing from the
22 Nielsen diary data.
23 Q.   For 2000 to 2003?
24 A.   For 2000 to 2003, yes.
25 Q.   And also for 2008/2009?

419

1   A.   Right, for the People Meter data,
2   there's also a relatively high incidence of
3   non-recorded distant viewing.
4   Q.   And when you say the People Meter
5   data, you mean the distant meter data for
6   2008/2009?
7   A.   Yes.
8   Q.   With regard to the Nielsen local meter
9   ratings or, excuse me, Nielsen local meter data
10   for 2000 to 2009, that also has significant
11   number of zero viewing or the word you used --
12   I can't remember the phrase you used.
13   A.   The local ratings data is different,
14   and it's certainly not the same magnitude of
15   instances of non-recorded viewing. Nielsen
16   estimates local ratings.
17   Q.   Okay. But do you recall roughly what
18   it was, what percentage it was?
19   A.   I don't.
20   Q.   Okay. Did you make any calculation in
21   that regard for the 2000 to 2009 data?
22   A.   It's -- it's far less often. Far
23   fewer instances. Again, they calculate local
24   ratings for every program, but in some cases
25   they don't have enough data to do it. And then

420

1   they don't call that non-recorded. In that
2   case, they just say there's not enough
3   information to calculate local ratings.
4   Q.   Is that fundamentally different than a
5   non-recordation?
6   A.   You could ask that of Mr. Lindstrom.
7   Q.   Now, what happens if a situation where
8   both the local and the distant ratings reflect
9   zero viewing?
10   A.   If there was not enough information on
11   a local basis for Nielsen to calculate local
12   ratings, and there was non-recorded viewing on
13   a distant basis, what I would do is use the
14   average local ratings for the program type and
15   time of day for local ratings and estimate
16   distant viewing for that particular program.
17   And that's a relatively uncommon occurrence,
18   but that's the approach I would take.
19   Q.   Okay. Did you calculate the -- I
20   think I asked you this, but did you calculate
21   the overall incidence of zero viewing for the
22   2000 to 2009 local meter data?
23   A.   I did not receive 2000-2009 local
24   meter data. I'm not sure what you're referring
25   to.

421

1   Q.   I believe that -- maybe I'm stating it
2   incorrectly. I believe that the third of the
3   three Nielsen data sets that you had were for
4   local ratings of 2000 to 2009?
5   A.   Yeah -- yes, in my mind, I think of it
6   as local ratings data. Can you repeat the
7   question, please?
8   Q.   Did you calculate the incidence of
9   zero viewing for that data, the 2000-2009 local
10   meter data?
11   A.   Those are local ratings, rather than
12   local viewing. I did not calculate the
13   incidence of zero or non- -- too small to
14   calculate local ratings.
15   Q.   Okay. Now, I believe that you
16   previously testified that less than 1 percent
17   of all your viewership projections reflect zero
18   viewing.
19   A.   Correct. That was based upon the
20   2000-2003, but similar numbers also when
21   augmented with the 2008 to 2009.
22   Q.   And so even with 2008/2009, your --
23   your projections still reflect less than
24   1 percent zero viewing?
25   A.   Correct. Again, these are distant

422

1   viewing estimates, yes.
2   Q.   Does that seem -- that seems quite --
3   I mean, is that possible, given that the
4   regressions supplant the zeros that were
5   actually measured in both the local and distant
6   ratings with positive numbers? How does that
7   reconcile that still -- that the incidence of
8   zero viewing is below 1 percent?
9   A.   I could give yet another hypothetical
10   if you'd like. I tried this last time. And I
11   did this left-handed example. You know, I'm
12   going to -- I made this relatively simple last
13   time, so I'm going to make it less tractable
14   for the fun of it.
15   So last time, I just had a handful of
16   things. Imagine Nielsen went out and were
17   interested in, you know, the percentage of the
18   population that's left-handed. You could look
19   it up. It's 10 percent.
20   And -- but imagine Nielsen went out
21   and surveyed in 1,000 cities five people in
22   each city and found out if they were
23   left-handed. What you'll find if you do the
24   math is they will never get 10 percent because
25   10 percent of 5 for you is .5.

423

1   So -- and what you'll likely have is,
2   you know, 60, 70, maybe even 80 percent of
3   these cities will have zero observations of
4   left-handed people. Then you'll have other
5   instances in cities where there will be three
6   out of five, four out of five of left-handed
7   people.
8   Now, in those particular cities, that
9   doesn't mean there are 60/80 percent of the
10   people in the city that are left-handed. So
11   that's why I would never supplant the
12   quote/unquote actual Nielsen observation with
13   -- over my prediction. So my prediction if I
14   ran a regression based upon all that data,
15   every single one of these 5,000 cities would be
16   about 10 percent left-handed even though
17   70 percent Nielsen said there was zero, or in
18   another high percentage, Nielsen said 3 or 4.
19   I would go with my estimate for each
20   city of 10 percent because I believe that to be
21   the most accurate.
22   JUDGE STRICKLER: Well, in the example
23   you just gave, sticking with the left-handed,
24   you started off a priori knowing that there
25   were 10 percent that were left-handed. So all

424

1   you were doing was trying to verify something
2   you already knew. And then when you found out
3   the data didn't confirm what you already knew,
4   you said I'm going back to what I already know.
5   So it seems that we went through a big circle.
6   We didn't need the statistics at all, did we?
7   THE WITNESS: We did.
8   JUDGE STRICKLER: Well, but when you
9   come in, you already knew 10 percent. The
10   statistics disproved it, you said, so I'm going
11   to throw those out and I'm going to go back to
12   my 10 percent. Maybe it's just the analogy
13   that's problematic, not your testimony.
14   THE WITNESS: I -- I think the analogy
15   -- I think maybe I was not -- I was indeed
16   intractable. So let me try it a little bit
17   more. Suppose I didn't know it was 10 percent.
18   I only know it's 10 percent because in that
19   other room I did Google it to confirm there are
20   10 percent left-handed.
21   But suppose I did not know, okay? So
22   throw out my prior knowledge, and then I went
23   out and to 5,000 -- did I say 5,000 -- 1,000
24   cities, five each, I have no idea. And then
25   what I'll find is I'll get, you know,

425

1   70 percent of these cities zeros, and some
2   cities, again, two or three.
3   What Mr. Lindstrom and Nielsen would
4   do is aggregate all these numbers up and find
5   500 across all the U.S. and all these 1,000
6   cities are left-handed, 10 percent.
7   I would run a regression and predict
8   it out and find in each city there are on
9   average .5 people, i.e., 10 percent. And so a
10   priori I set up the example that way, but even
11   had I not known, the analogy, with all due
12   respect, I think, it applies.
13   JUDGE STRICKLER: Because it's the
14   nature of an average?
15   THE WITNESS: Yeah. In that example,
16   it's the nature of an average. I mean, what's
17   -- that's what regressions are ultimately
18   doing, is calculating, you know, a conditional
19   expectation, a conditional average. In this
20   case, I don't have any additional control
21   variables. I could get fancier and say, you
22   know, in cities with lots of baseball players,
23   you're more likely to see more left-handed
24   people, and so I would have to control for the
25   number of baseball players. That's when you

426

1   hire someone like me, and not Nielsen. But in
2   my simple example, I don't have to control for
3   baseball players.
4   I just went off track with my analogy.
5   I apologize. But is that a question or does
6   that make sense?
7   JUDGE STRICKLER: No. It just sounds
8   like the analogy is -- what you're stating is
9   what a regression is, and it's in the nature of
10   an average. It just seems like the example
11   just gets in the way.
12   THE WITNESS: I feel humbled.
13   (Laughter.)
14   BY MR. BOYDSTON:
15   Q.   All right. Dr. Gray, now -- I mean,
16   moving away from metaphor a little bit, let's
17   talk about what you actually did here. Now,
18   with this -- here what actually happened is
19   when you did that averaging, it was based on
20   about 6 percent of readings which were not zero
21   viewing; in other words, there was about
22   94 percent of this is zero viewings, so when
23   you do your average, you're using 6 percent of
24   the total to make your 10 percent left-handed
25   call, right?

427

1   A.   Well, let me be a little more precise
2   because I know this off the top of my head for
3   cable. For cable, I now have 563,000
4   quarter-hours of positive -- that is,
5   non-zero -- distant viewing on the
6   quarter-hour.
7   And so that's -- from an
8   econometrician and data analytics guy, that is
9   a lot of information from which to predict
10   distant viewing. And so I use that information
11   together with those even higher incidences of
12   non-recorded viewing to predict out likely
13   distant viewing on a quarter-hour by
14   quarter-hour basis, and I -- and there's a
15   reason why these numbers aren't changing very
16   much, is the regression is remarkably robust.
17   Q.   Okay. Do you have any quibble with my
18   figure that you're basically using 6 percent,
19   though, to make that conclusion, right?
20   A.   I'd have to double-check the
21   6 percent.
22   Q.   Okay. Well, I'll tell you where I'm
23   getting the 6 percent. It's basically just a
24   calculation that I made based upon the
25   availability of the data that you're using.

428

1   And if you give me a second here. Here we go.
2   So my view of your report and your
3   data, what we have here is you're utilizing, to
4   begin with, distant diary data from the sweeps
5   weeks, correct?
6   A.   Yes.
7   Q.   So that means that Nielsen diary data
8   has about an 80 percent zero viewing, so then a
9   zero is assumed for all the non-sweeps weeks,
10   which is 36 weeks out of the year. So for 36
11   weeks out of the year, we've got zero. For the
12   16 weeks out of the year, we've got 80 percent
13   zero viewing. And 16 weeks times .8 and 36
14   weeks at zero equals 52 weeks, therefore,
15   94 percent of zero viewing. Am I incorrect?
16   A.   Yes, you're incorrect.
17   Q.   Fair enough. How am I incorrect?
18   A.   And, in particular, for the
19   non-sweeps, when I don't have recorded distant
20   viewing, all right, so when Nielsen doesn't
21   have information, I don't treat that as a zero.
22   I treat that as missing and I predict distant
23   viewing based upon the other relationships.
24   So there's a big difference between
25   Nielsen saying nobody in the sample is viewing

429

1   and there being no, you know, for those
2   non-sweeps weeks where I have no information, I
3   predict distant viewing. In the case of 2000
4   to 2003, I predict distant viewing in those
5   instances where I have none. I don't treat
6   those missing as zero.
7   Q.   Well, then here we're talking about
8   sort of a pre-regression because what you're
9   saying is that, okay, I know that there are all
10   these open zeros here, but I'm not going to
11   treat them as zeros. I'm going to go -- I'm
12   basically going to make a calculation to go
13   back and put numbers in those zeros and then
14   calculate the average where those zeros aren't
15   zeros anymore, but now they're a number that
16   I've substituted in for the zero, correct,
17   based on your analysis?
18   A.   I wish I had a chalkboard. Look, what
19   I'm -- what I'm doing is calculating a
20   relationship when I have data. So for your --
21   so let's just stick to 2000 to 2003.
22   2008/2009, I have information for each of those
23   years, you know, for every single day. For
24   2000 to 2003, as you said, I only have for
25   sweeps weeks.

430

1   So in sweeps weeks, there will be a
2   lot of instances of non-recorded viewing. You
3   can call them zeros. And in many instances,
4   actually a positive viewing. So for those
5   sweeps weeks, I calculate a relationship
6   between local ratings, time of day, program
7   type, and so forth, so that relationship is
8   calculated via the regression. So there's no
9   -- I don't know what you mean by
10   pre-regression. So that relationship is
11   calculated.
12   For the non-sweeps weeks, once I have
13   that relationship, okay, I don't know what the
14   distant viewing is if you're not in sweeps
15   weeks, but I know the local ratings, I know the
16   time of day, I know the program type, and I've
17   calculated this correlation. So I can tell
18   you, even though I have no Nielsen data, how
19   many households I expect to view on that
20   quarter-hour. That's what the regression and
21   what the prediction does.
22   Q.   Well, isn't it true, though, that the
23   raw data, just the raw data, the actual numbers
24   that you have, that shows positive viewing, a
25   positive viewing number, is only 6 percent of

431

1 the total?
2   A.   No, no, no. Because you're counting
3 the missings as zeros.
4   Q.   I am, yes.
5   A.   If missings are not zeros.
6   Q.   Yeah. If you count those missings as
7 zero, then it's just 6 percent, right? If you
8 do that.
9   A.   I was about to do an impolite analogy.
10 You cannot count missings and zeros because
11 they're missing.
12   Q.   Well, I understand that's your view,
13 but if you did count them as zeros for the sake
14 of argument, I believe what you're left with is
15 just an incidence of positive viewing 6 percent
16 of the time.
17   MR. OLANIRAN: Objection, asked and
18 answered.
19   JUDGE BARNETT: Sustained.
20 BY MR. BOYDSTON:
21   Q.   You understand or do you understand
22 that local broadcasts do not generate a distant
23 retransmission royalty? Fair enough to say?
24   A.   That's my understanding of the
25 statute, yes.

432

1   Q.   Nonetheless, because you want to
2 determine distant viewership and measure value,
3 and that information is not available or only
4 available in a limited fashion, you're using
5 local viewership as your starting point to
6 impute and predict the distant viewership.
7 Fair enough?
8   A.   I use local ratings, time of day,
9 program type, and on an annual basis also the
10 total fees paid by the CSO or satellite system.
11   Q.   Okay. Let's talk about the distant
12 subscribers and perhaps you could explain in a
13 little more detail how you utilized that.
14 Actually, before you do, that's a factor that
15 -- let me set a foundation first.
16   I believe in the first round of this
17 proceeding, you provided rebuttal testimony
18 against the IPG methodology, correct?
19   A.   By the first round -- oh, you mean,
20 before the remand?
21   Q.   Correct.
22   A.   Yes, I did.
23   Q.   Okay. Do you recall generally, or
24 specifically for that matter, do you recall the
25 IP methodology much?

433

1   A.   Which methodology are you referring
2 to?
3   Q.   The one in the first round of this
4 proceeding before the remand.
5   A.   Yeah, I believe they had a couple
6 methodologies.
7   Q.   Okay. Well, I think for -- in any
8 event, you recall something about the IPG
9 methodology at the beginning of this
10 proceeding?
11   A.   There was one based upon the time
12 period weight factor and such, I believe there
13 was one. I don't recall it in detail.
14   Q.   Do you recall that one of the factors
15 that IPG used in that analysis was an analysis
16 of subscribers exposed to various -- the
17 various transmissions?
18   A.   Yeah, if we should be precise, if you
19 -- I mean, you could put their testimony in
20 front of me --
21   Q.   Sure.
22   A.   -- but I don't recall the -- the
23 detail. Are you referring to what I've called
24 the Galaz methodology?
25   Q.   I think probably so, yeah, yeah. And

434

1 if you'd like to see it, we can certainly
2 provide it to you.
3   JUDGE BARNETT: Do you have a
4 question, Mr. Boydston?
5   THE WITNESS: If the question is if
6 I'd like to see it, no, I would not.
7   (Laughter.)
8   MR. BOYDSTON: My question was whether
9 or not he recalled that methodology, and he
10 said he kind of did but he wondered if he could
11 see the report. Then he would like to see it
12 or it would refresh his recollection. I don't
13 think he used that word, so I'm trying to
14 accommodate him.
15   JUDGE BARNETT: Well, what's the
16 purpose of having him answer that he recalls it
17 or he doesn't recall it? Do you have a
18 question?
19   MR. BOYDSTON: Yeah, my question was
20 and still is, do you recall that IPG used this
21 same factor, looking at distant subscribers, as
22 part of its methodology? That's what I'm
23 trying to get at. And then he said, well, I
24 can't remember, whatever the case may be.
25   THE WITNESS: I -- no, as I recall,

435

1   IPG came up with a methodology that actually
2   measured the opportunity of viewership. And so
3   I believe it had a time of day factor, it had a
4   subscriber factor, it might have had the length
5   of program factor. And I believe those were
6   the three that it had. I might be missing one.
7   But -- and what I criticized it for
8   was that, again, it measured -- and the Judges'
9   outlined this in the '00 to '03 decision, that
10   it measured the opportunity for viewing but not
11   viewing itself; so, therefore, was inferior.
12   BY MR. BOYDSTON:
13   Q.   Okay. But in your methodology here,
14   you were also, as an aspect of it, using --
15   taking a look at the number of distant
16   subscribers that are exposed to the program at
17   issue, correct?
18   A.   The number of distant subscribers, the
19   time of day. Again, the opportunity for
20   viewership is important. What I really want to
21   get at is viewership.
22   Q.   I understand. Part of that is the
23   number of distant subscribers that were exposed
24   to the program, correct?
25   A.   A factor in the viewership will be the

436

1   opportunity for viewership. And the
2   opportunity for viewership will be the number
3   of distant subscribers exposed to a station and
4   therefore a program.
5   Q.   And then in addition to that, you
6   mentioned time of day. You were factoring that
7   in as well, correct?
8   A.   Correct.
9   Q.   And that was also an indicia that IPG
10   used previously, correct?
11   A.   Correct.
12   Q.   And then the type of program aired is
13   another indicia you're using, correct?
14   A.   Yes.
15   Q.   And did you provide a -- a higher
16   multiple for certain types of programming over
17   others? Is that how that worked?
18   A.   Did I provide -- a regression
19   calculated sort of a higher impact of certain
20   types of programming, relative to other types
21   of programming.
22   Q.   And what were those various values? I
23   mean, what types of programming got what types
24   of impact and how much?
25   A.   Well, we could look at one of the

437

1   regression results that are in the appendix. I
2   likely have them.
3   Q.   D-1 and D-2?
4   A.   D-1, which includes D-1a and D-1b, and
5   D-2, which includes D-2a and D-2b. And D-2 is
6   related to satellite. D-1 is related to cable.
7   And as I described earlier, I ran the
8   WGN regression or WGN station separately from
9   the rest of the stations so D-1a will present
10   regression results excluding WGN.
11   Q.   Well, let me start at D-1. I see at
12   the end of the chart, the bottom of the chart
13   on the second page of it, at the left-hand
14   side, it states three different types of
15   stations, network, CW, and independent. So are
16   those the three potential types of programs
17   you're looking at?
18   A.   No. The types of programming would be
19   on the next page.
20   Q.   All right. I see what you're saying.
21   Those are types of programs. What I was
22   pointing at was type of affiliation, I guess.
23   A.   Correct.
24   Q.   So types of programs. Perhaps you can
25   just explain how this works starting -- just

438

1   using maybe the first one as an example, the
2   children's show. What does that figure -- how
3   does that figure play into the analysis?
4   A.   Yeah. What that will say in the
5   omitted category, I believe, is arts, so
6   relative to arts programming, children's shows
7   will have a .23 percent lower level of distant
8   viewing, all else equal.
9   Q.   And then moving down a ways, I see
10   about 40 percent of the way down, music, and it
11   says 0.905276. And so what does that mean for
12   that category?
13   A.   So music, again, relative to arts, all
14   else equal, so the same time of day, same
15   market size in terms of the number of programs
16   reached, and same ratings, then the music would
17   have a .9 percent higher number of distant
18   viewers relative to art programming.
19   Q.   Okay. Now, on what basis did you
20   decide to make these calculations and increase
21   or decrease these values based on program type?
22   A.   Well, this is based upon information
23   that's in the Tribune/Gracenote data, the
24   program type data. So I -- and I let the
25   regression define which programming is more

439

1 valuable relative to other programming.
2   Q.   Did the Tribune data provide you with
3 these values? Or --
4   A.   No. The -- the regression analysis
5 calculated these values.
6   Q.   Okay. How did the regression -- can
7 you give us an explanation of how you made that
8 calculation then?
9   A.   Well, the computer did it. You know,
10 regression goes back to Gauss about 300 years
11 now, but it would take me 300 years to make
12 this particular calculation because it's a
13 non-linear calculation controlling for all
14 these different factors at the same time,
15 saying, okay, at a certain time of day, if we
16 shift from one program type to another, what's
17 the average level of distant viewing across all
18 these hundreds of thousands of observations of
19 positive distant viewing and millions of
20 observations of non-recorded distant viewing?
21 So it makes the calculation.
22   Q.   Okay. The definitions themselves,
23 though, of the different categories were
24 provided by Tribune, correct?
25   A.   That's correct.

441

1 these are not homogeneous. That's why you're
2 using different values for different types of
3 programs, right?
4   A.   There are different types within
5 Program Suppliers. Certainly, within Program
6 Suppliers -- and I've made this argument
7 before -- is more homogeneous than across these
8 Phase I categories.
9   Q.   Let's turn the page back to page 51,
10 to the affiliation, the station affiliation,
11 which I referred to before errantly. So you
12 provide, it looks like, a higher multiple for
13 certain networks over others and over
14 independent television stations.
15   There's just three categories here,
16 network, CW, and independent. Could you
17 explain to us what the figures there represent
18 starting with network?
19   A.   Sure. And the omitted category in
20 this case is affiliate station, network
21 affiliate station. So, again, relative to --
22 you know, keeping all else equal as economists
23 like to say, if the program airs on a network
24 affiliated station, distant viewing happens to
25 be .43 percent lower than compared to

440

1   Q.   Now, isn't one of the assumptions of
2 the Program Supplier category that all this is
3 supposed to be homogeneous in the first place?
4   A.   I don't know if that's an assumption.
5   Q.   Okay. It's not an assumption you
6 made, obviously?
7   A.   It's -- I don't think it's -- you
8 know, again, there's a variety of programming
9 within the Program Supplier category. My
10 understanding is each of these categories, you
11 know, these so-called Phase I categories, are
12 agreed-to categories, you know, that the
13 parties agreed to a definition, but there is,
14 you know, heterogeneous programming across
15 those different groups and heterogeneous
16 programming within.
17   Again, it's somewhat of an artificial
18 construct. I think we should just have one
19 phase and get it all done with.
20   Q.   And in making this distinction --
21   JUDGE BARNETT: Here, here.
22 BY MR. BOYDSTON:
23   Q.   In making this distinction between
24 these different types of programming, obviously
25 you're operating on an assumption there that

442

1 programming that is on a -- I'm trying to
2 remember the omitted now -- I believe that was
3 -- oh, I'm sorry. I misspoke.
4   The omitted, I believe, is actually
5 UBN, relative to UBN, but I'd have to
6 double-check the omitted category.
7   Q.   What's UBN?
8   A.   It's a type of network. I can't
9 recall what it stands for.
10   Q.   What was that?
11   A.   UPN.
12   Q.   UPN.
13   A.   Is that right? I'd have to
14 double-check.
15   Q.   Okay.
16   A.   It would be in all the data that I
17 provided as part of discovery.
18   Q.   Let me ask you this: Where does the
19 Fox network appear, which of these categories
20 would you believe Fox appears in? Fox is a
21 little bit of a unique animal.
22   A.   Fox, that would be from the -- that
23 would be in the Gracenote -- I'm sorry, that
24 would be in the CDC data, and I believe Fox is
25 coded as independent.

443

1   Q.   Okay. And so are the network -- are
2   the only ones that are coded network, NBC, ABC,
3   and CBS?
4   A.   That's my understanding, yes.
5   Q.   So using these figures and this
6   analysis, a particular program broadcast at the
7   identical time of day, retransmitted to an
8   identical number of subscribers would be
9   assumed to have more viewers or less viewers
10   because it was or was not affiliated with, for
11   instance, a network affiliate, right?
12   A.   Correct.
13   Q.   And on what basis did you decide to
14   make that calculation and that distinction?
15   A.   It was information that was in the
16   Tribune data. And, again, I want to estimate
17   viewership as precisely as possible, so I used
18   any information that was available to help
19   improve the -- what's called the predictive
20   statistics of the regression model. And these
21   helped the model predict more precisely.
22   Q.   Let's talk about the aggregate of
23   total fees paid by the cable and satellite
24   system operators. Could you explain how you
25   used those in your calculation?

444

1   A.   Yes, and that, again, went to
2   responding to the Judges' footnote 5 in their
3   May 4th order regarding the dispute of what
4   base year to use when you adjust for
5   year-to-year average differences in distant
6   viewing.
7   So instead of using year dummy
8   variables, I use the log of total fees to
9   adjust for sort of annual highs and lows of
10   distant viewing.
11   And so what this will tell you is
12   during years where there are more fees paid by
13   a CSO, there tends to be higher levels of
14   distant viewing.
15   Q.   So higher fees means higher distant
16   viewing ratings?
17   A.   Higher fees in aggregate tends to --
18   will mean for every single program, there tends
19   to be higher levels of distant viewing. All
20   else equal.
21   Q.   Are you familiar with the fact that
22   viewing over the last 10, 15 years has been
23   dropping?
24   A.   When you say "viewing," you might want
25   to be more precise.

445

1   Q.   Viewership ratings.
2   A.   Are you referring to distant viewing?
3   Q.   Yes. And -- yes.
4   A.   Yes, I am.
5   Q.   And are you aware that subscriber fees
6   have gone up over the last 10, 15 years?
7   A.   Based upon the data that I see, I do
8   see increased subscriber fees.
9   Q.   Now, the use of this metric -- well,
10   strike that.
11   I think as we discussed earlier,
12   generally speaking, the amount of fees tracks
13   the amount of subscribers in a particular
14   system, correct?
15   A.   Yes, for a particular system. And,
16   again, this is not for a particular system;
17   it's a total fees paid measure.
18   Q.   I understand. Now, is there an issue
19   here with possibly then just double-counting
20   the number of subscribers by making
21   calculations based upon number of subscribers
22   exposed to a particular broadcast and then also
23   making a calculation based on how many fees are
24   associated with those subscribers exposed to
25   the broadcast --

446

1   A.   No, because --
2   Q.   Retransmission?
3   A.   No. You just said you understood, but
4   the total fees is for all total fees, not just
5   for that particular retransmission, all total
6   fees in the -- in the year. Again, just trying
7   to get at these annual differences in distant
8   viewing.
9   Q.   So to kind of sum this up about these
10   different indicia we've just been talking
11   about, I think -- is it accurate for me to
12   characterize your testimony and your
13   methodology with regard to these indicia that
14   you're saying that your regressions show that
15   the number of distant subscribers, the time of
16   day broadcast, fees paid by the CSOs and SSOs
17   all significantly affect distant viewing and,
18   therefore, your attributed value at the end of
19   the analysis?
20   A.   Yeah, I didn't hear you say local
21   ratings, and local ratings as well, yes.
22   Q.   Is it accurate then that your
23   methodology tends to treat as similar programs
24   those that are distantly transmitted the same
25   time of day run for the same number of minutes

447

1 per program and then appear on the same
2 station? Do that again?
3   A.   Yeah, do that again, please.
4   Q.   Sure. I'm asking if then your
5 methodology tends to treat as similar programs
6 that are run that are distantly retransmitted,
7 rather, at the same time of day, run for the
8 same number of minutes, and appear in the same
9 station?
10   MR. OLANIRAN: Objection, vague. I
11 don't know what "similar" means in that
12 context.
13 BY MR. BOYDSTON:
14   Q.   Okay. I can use a word different than
15 "similar" if it helps. Do you understand the
16 question?
17   A.   Well --
18   MR. OLANIRAN: Objection.
19   JUDGE BARNETT: The objection is
20 sustained.
21   MR. BOYDSTON: Okay. I'll try again.
22 BY MR. BOYDSTON:
23   Q.   Is it accurate that your methodology
24 tends to give equal or close to the same
25 treatment or same conclusion for programs that

448

1 are distantly retransmitted at the same time of
2 day, for the same number of minutes, and on the
3 same station?
4   A.   No. Sorry.
5   MR. MacLEAN: Your Honor, I'm going to
6 object as vague. Two programs on the same
7 station at the same time of day are the same
8 program.
9   JUDGE BARNETT: Well, that was my
10 difficulty.
11   MR. BOYDSTON: Same time of day, not
12 the same day, same time of day --
13   JUDGE BARNETT: Right, but --
14   MR. BOYDSTON: -- i.e., one is on
15 Wednesday at 12 noon. Another one is on
16 Tuesday at 12 noon. Not the same day.
17   JUDGE BARNETT: Oh, okay. Well, I was
18 hearing what Mr. MacLean was hearing.
19   MR. BOYDSTON: Fair enough.
20   JUDGE BARNETT: Okay.
21   MR. OLANIRAN: But same objection. In
22 the context of a statistical analysis, same,
23 similar, or close to the same treatment, it's
24 not clear.
25   JUDGE BARNETT: That objection is

449

1 sustained.
2   MR. OLANIRAN: Thank you.
3 BY MR. BOYDSTON:
4   Q.   Well, I'll use the word "value"
5 instead of that. I think -- I hope -- I think
6 that would clear it up.
7   Does your methodology then value
8 programs the same if they are at the same time
9 of day of the broadcast, excuse me, the fees --
10 I'm sorry. Now I've got myself confused. Let
11 me try it just once again.
12   So we have two different programs.
13 And my question is will they have the same
14 value under your methodology if they appear at
15 the same time of day, run for the same number
16 of minutes, and appear on the same station?
17   A.   No.
18   Q.   Fair enough. Why no?
19   A.   Well, we spent some time looking at
20 this regression results, and it's because of
21 these regression results, and also those two
22 different programs might, for example, have
23 different levels of local ratings, which I view
24 as a measure of the program quality.
25   Programs that have higher local

450

1 ratings tend to have higher distant viewing.
2 And those two programs might have different
3 local ratings and, therefore, different distant
4 viewing.
5   And what else do you have besides time
6 of day? Did you say the number of distant
7 subscribers. I don't think you had that in
8 there.
9   Q.   I did not.
10   A.   And so those two -- one program might
11 reach 100 distant subscribers and so only 100
12 with the opportunity to view. The other might
13 reach a million with a million opportunities to
14 view. So short answer: No.
15   Q.   What if there's no rating whatsoever?
16 What if we're dealing with a circumstance with
17 a zero viewing incidence?
18   A.   Again, I'm predicting distant viewing.
19 So -- so, no.
20   Q.   Okay. But if the original ratings are
21 zero, before you get to the point where you can
22 predict it, how do you then use that
23 information to help make your prediction?
24   A.   In those unusual circumstances where
25 Nielsen does not have local ratings for a

451

1   program, then I use the average local ratings
2   for that type of program at that quarter-hour.
3   JUDGE STRICKLER: What do you mean by
4   that type of program?
5   THE WITNESS: The program types that
6   we went over, such as movie versus
7   instructional. So there's unusual -- they seem
8   to think there's a high incidence. My
9   understanding is there's very few incidents
10   where Nielsen doesn't measure the local ratings
11   because they're in the business to provide
12   these.
13   So what Nielsen has for those
14   incidents where Nielsen doesn't have enough
15   information to calculate local ratings, the
16   data will have little carets in it; those
17   little arrows.
18   And in those -- for those situations,
19   I estimate local ratings for that program based
20   upon the average local ratings for that program
21   type, whether it be a movie, a special, a
22   finance show, a daytime soap for that
23   quarter-hour throughout the period.
24   BY MR. BOYDSTON:
25   Q.   And you're comfortable doing this even

452

1   if 94 percent of the time in instances, there's
2   a zero viewing indication to begin with?
3   A.   Two things. One is I've already
4   discussed the 94 percent, and I disagree
5   wholeheartedly. Secondly, we're referring to
6   local ratings, where -- not distant viewing,
7   and local ratings are far more prevalent, and
8   that's why I use local ratings to predict
9   distant viewing in those incidences where there
10   is non-recorded distant viewing or no
11   information on distant viewing.
12   Q.   Now, is it -- in the order, that May
13   4th order, 2016, we were referring to, do you
14   recall that the Judges made a comment about
15   your testimony about these factors we just have
16   been discussing and they credited your
17   testimony to the extent -- to the effect that
18   you said something to the effect that to the
19   extent IPG's reported indicia of value,
20   subscribers, time of day, et cetera, have any
21   relevance in this proceedings, it's because of
22   their relationship to viewership? Is that --
23   was that your position at the time, do you
24   recall?
25   A.   Yes, and I think I used the words that

453

1   it's really the opportunity of viewership. And
2   the opportunity of viewership is certainly
3   correlated with viewership.
4   Q.   Now let's talk about the question of
5   what cable system operators value.
6   MR. MacLEAN: Your Honor, I wonder if
7   now or sometime soon would be a good
8   opportunity for a short mid-afternoon break.
9   JUDGE BARNETT: Yes. Now would be a
10   good time for a short afternoon break. We will
11   take a ten-minute recess.
12   (A recess was taken at 2:34 p.m.,
13   after which the trial resumed at 2:52 p.m.)
14   JUDGE BARNETT: Please be seated. Mr.
15   Boydston?
16   MR. BOYDSTON: Thank you, Your Honor.
17   BY MR. BOYDSTON:
18   Q.   Dr. Gray, I think you may have said
19   this in the beginning of your sort of opening
20   remarks to your direct testimony, but I believe
21   you understand that in these proceedings, our
22   goal is to try to find the relative value of
23   the programming at issue. Is that your
24   understanding?
25   A.   Yes, the relative market value, yes.

454

1   Q.   And it is the relative market value to
2   cable system operators and satellite system
3   operators, correct?
4   A.   Well, it's the relative market value
5   of the programming at issue.
6   Q.   But when we say it's relative, we have
7   to say what it's relative to. I believe it is
8   relative -- it's the value relative to the CSOs
9   and the SSOs. Do you believe it is value
10   relative to something else or someone else?
11   A.   No. I view it as relative market
12   value of the programming. In this case it
13   would be the IPG programming relative to MPAA
14   programming.
15   Q.   Okay. But it's the value relative to
16   whom at the end of the day?
17   A.   Well, as I described in my testimony,
18   you know, there's a willing buyer and a willing
19   seller. And so it's not just the cable systems
20   and satellite systems are involved, you know,
21   the -- the broadcast station is involved and
22   ultimately the copyright owner is involved
23   because they are the one that owns the
24   property.
25   Q.   Right. You might say that the

455

1 copyright owner is the seller, correct?
2   A.   I would say that they are the seller,
3 yes.
4   Q.   And the buyer is the CSO or the SSO?
5   A.   Well, as I have articulated in another
6 proceeding, the way I envision it is the buyer
7 is the broadcast station.
8   Q.   Okay. Even though the broadcast
9 station doesn't pay the royalty?
10   A.   Again, this is in the hypothetical
11 free market, absent Section 111 and 119, yes.
12   Q.   Okay. You understand that as a
13 factual matter, it is the CSOs and the SSOs
14 that do, in fact, pay these royalty fees,
15 correct?
16   A.   In the regulated market, yes. And my
17 task is to try to value what the relative
18 market value would be in an unregulated market.
19   Q.   So you are really focusing on the
20 value of the program for the broadcaster, I
21 think that's what you just said, right?
22   A.   Well, I'm focusing on the relative
23 market value, which the way I think of it as an
24 economist would be, you know, what's the value
25 of this asset that the owner of the copyright

456

1 holder is selling it to the broadcast station.
2 And the broadcast station will pay for that
3 right to transmit it in its local market and
4 then pay a surcharge for the right to
5 retransmit to a cable system or satellite
6 system.
7   Q.   You are saying that the broadcaster
8 would pay an extra fee for the right to
9 rebroadcast?
10   A.   I believe that's a reasonable outcome
11 in an unregulated market.
12   Q.   Okay. But obviously it is not one in
13 the actual market that's regulated, obviously,
14 right?
15   A.   That's not the way it currently
16 occurs, no.
17   Q.   Right.
18   A.   And instead what occurs is what we're
19 sitting here today, to try to calculate what
20 level of royalty fees should go back to the
21 copyright holder.
22   Q.   Right. And you --
23   A.   On a program-by-program basis, and
24 then that's what I do. And then calculate on a
25 program-by-program basis, I have the level of

457

1 fees -- I'm sorry -- the level of royalties and
2 divvy that up between IPG and MPAA based upon
3 the claimed ownership.
4   Q.   So in your analysis or are you -- do
5 you not take into consideration the value of
6 these rebroadcasts to the CSOs that pay the fee
7 for them?
8   A.   Well, it will be implicit, right,
9 because the broadcast station is going to seek
10 to recoup its surcharge in its transactions
11 with the cable system and the satellite system.
12   And these systems will be negotiating
13 to retransmit the bundled signal, and they will
14 do that in proportion to how much it is going
15 to be valued by the subscriber, as evidenced by
16 distant viewing.
17   Q.   So --
18   A.   So, therefore, distant viewing is a
19 good measure of relative value of distantly
20 retransmitted programming.
21   Q.   So is it your belief that the value of
22 a particular retransmitted program to the CSO
23 who pays the licensing fee is important in this
24 analysis or not?
25   A.   I'm sorry, say that again?

458

1   Q.   Do you believe that the value of a
2 particular rebroadcast is -- excuse me.
3   Do you believe that the value to the
4 CSO is important, and when I say the value to
5 the CSO, what I mean is to what degree the CSO
6 values a broadcast, a retransmission at issue,
7 do you think that's important? Do you think it
8 is important to know what the CSO thinks in
9 terms of the value of the various choices he
10 has amongst different rebroadcasts or
11 retransmissions?
12   A.   I measure that via viewership. It
13 will be valuable to the CSO and the satellite
14 system, in their interest to attract and retain
15 subscribers. And that can be measured by
16 viewership of that programming.
17   Q.   Okay. Have you -- do you recall in
18 the first round of these proceedings there was
19 testimony given by a gentleman named Michael
20 Egan. Did you ever review his testimony?
21   A.   Not that I recall, no.
22   Q.   And I should be more detailed. He
23 provided written testimony and he also
24 testified orally. Do you know if you ever
25 reviewed either his written testimony or his

459

1   oral testimony?
2   A.   Not that I recall, no.
3   Q.   Did anyone ever explain it to you or
4   transmit it to you or say this is the view of
5   this one particular CSO?
6   A.   Michael Egan is a CSO?
7   Q.   He was.
8   A.   I did not know that.
9   Q.   Okay. Did anyone ever talk to you
10   about his testimony?
11   A.   Not that I recall, no.
12   Q.   Okay.
13   MR. BOYDSTON: Your Honor, may I
14   approach?
15   JUDGE BARNETT: You may.
16   BY MR. BOYDSTON:
17   Q.   There is a prior decision published in
18   the Federal Register that I would like you
19   to -- I would like to direct your attention to.
20   It is this one here (indicating). And it is
21   opened up already to the page I am going to ask
22   my questions about.
23   This is the distribution of the
24   1998/1999 cable royalty funds which was
25   published on January 26, 2004.

460

1   And the page I have it open to there
2   for you is page 3613. And in this decision
3   they discuss various issues that are at issue
4   here.
5   I would like you to read a portion of
6   it, a small portion, and then when you are done
7   reading it, let me know and I will ask you some
8   questions about it. The portion I was going to
9   ask you to read is about the middle of the page
10   on the far left column. And it begins with the
11   line "the Nielsen study was not useful because
12   it measured the wrong thing."
13   If you could read that and then the
14   quote below that.
15   A.   I am actually looking for that
16   sentence you are referring to. Which
17   paragraph?
18   Q.   May I approach?
19   JUDGE BARNETT: You may. It is about
20   two-thirds of the way down.
21   BY MR. BOYDSTON:
22   Q.   It, unfortunately, is not at the
23   beginning of the paragraph. It would be this?
24   A.   This (indicating)?
25   Q.   There we go. I am upside down,

461

1   looking at it upside down. You can start there
2   after. That's easier.
3   A.   Well, there are more words. I don't
4   know if it is easier. How far do you want me
5   to read?
6   Q.   To the end of the quote that's in
7   small type, and it ends with "it" at 38.
8   A.   Got you. Okay.
9   Q.   Have you ever read this before?
10   A.   I may have. Back in 2010, 2011, I was
11   inundated with decisions, and I might have read
12   this, but I don't recall it.
13   Q.   Okay. Do you have any reason to
14   disagree with the statement that you just read?
15   A.   Well, I disagree with it on many
16   reasons. As an economist is one reason.
17   Q.   Okay. And I don't want you to repeat
18   your whole testimony, if necessary, but can you
19   just give us a general explanation as to why
20   you disagree with it?
21   A.   Oh, because I think viewership is
22   ultimately the currency. It's what gives
23   value, you know, negotiating power to the
24   copyright holder. And it's what the, you know,
25   cable system and satellite systems are

462

1   interested in bundling together programs or
2   that are on, I should say, bundling together
3   channels that have programs that are valued by
4   their potential or existing subscribers. And
5   that's best measured by viewership.
6   Q.   But in this regulated market, the
7   copyright holder has no ability to bargain for
8   the value of his content, right?
9   A.   No. That's why we're here to make
10   sure the copyright holder is adequately
11   compensated. So hopefully at the end of this
12   hearing the copyright holders, the money will
13   flow back to them in proportion to viewing.
14   Q.   You had just said that the viewership
15   would likely be important to the copyright
16   holder, correct?
17   A.   It is what gives them, I think,
18   negotiating power, both the viewership in the
19   local market where the broadcast station is, as
20   well as the distant viewing in the secondary
21   market.
22   Q.   They would have that, that would be
23   important to them in the hypothetical market,
24   not the regulated market that's the actual
25   market, right?

463

1   A.   Well, it is definitely important to
2 them in the hypothetical market. And our goal,
3 my understanding of our goal is this -- is the
4 secondary market, how do we make sure that the
5 copyright holders are reasonably and fairly
6 compensated. Your Honor.
7   JUDGE STRICKLER: Why would we -- why
8 would the copyright owner have greater value or
9 negotiating leverage through higher viewership
10 if it turns out that subscribership is the key
11 to value for a CSO, and assuming subscribership
12 is not a function of viewership, they would
13 just be able to play a card that has no value?
14   So you are really presupposing that
15 viewership has value to the CSO when you say
16 that viewership is of value for the -- for the
17 copyright owner, correct?
18   THE WITNESS: Well, I would say -- I'd
19 say viewership is integral to a customer's
20 decision to subscribe or maintain
21 subscribership to a CSO in a satellite system.
22   JUDGE STRICKLER: Right. So that
23 viewership is valuable to the CSO because -- to
24 the CSO and, therefore, it is valuable to the
25 copyright owner. The copyright owner could

464

1 talk about anything it wants about the
2 attributes of its program, but unless it has
3 value to the purchaser, it doesn't really
4 matter.
5   THE WITNESS: Right, and I think it
6 will have value -- it will be valuable to the
7 purchaser if the purchaser in this case, your
8 customers or potential customers want this hot
9 commodity or not hot commodity.
10   JUDGE STRICKLER: Okay. I think we're
11 saying the same thing.
12   THE WITNESS: Right.
13 BY MR. BOYDSTON:
14   Q.   Staying on the same document and the
15 same page and the same column.
16   A.   Yes.
17   Q.   If I could ask you to read the
18 paragraph above the one that you just read
19 which begins "the devaluation of the Nielsen
20 study." And then let me know when you are
21 done.
22   A.   The entire paragraph?
23   Q.   Yes.
24   JUDGE STRICKLER: Where are we
25 starting from here?

465

1   MR. BOYDSTON: The first full
2 paragraph on page 3613 on the left-hand column,
3 far left-hand column that begins with words,
4 "the devaluation of the Nielsen study."
5   JUDGE STRICKLER: Got it, thank you.
6   THE WITNESS: I am done. I am waiting
7 for everyone else to be done too.
8 BY MR. BOYDSTON:
9   Q.   Do you disagree with the views in that
10 paragraph?
11   A.   I prefer my paradigm that I just
12 described.
13   Q.   Well, does that mean you think your
14 paradigm is different than this one and better?
15   A.   Yes.
16   Q.   Okay. Are you familiar with any of
17 the -- I am not sure how familiar. You said
18 you may have seen this decision before but you
19 saw a lot of things, you don't know if you have
20 seen it before or not.
21   There were several witnesses that
22 testified in the proceeding that this
23 concerned, and I am going to give you some
24 names and ask you if any of those names jog
25 your memory as people whose testimony you have

466

1 heard before or their views that you may have
2 heard before. You may have or you may not
3 have.
4   You said you recognized Michael Egan,
5 but these are other people similarly situated.
6   A.   I said I did not recognize him.
7   Q.   Oh, I thought you -- then I stand
8 corrected. I thought you said you remembered
9 his name. Anyway, John Fuller?
10   A.   No.
11   Q.   James Trautman?
12   A.   Yes.
13   Q.   And in what context are you familiar
14 with James Trautman?
15   A.   In a recent allocation hearing that I
16 was involved in, he worked on behalf or was
17 engaged on behalf of, I believe, JSC, but he
18 was the overseer of the so-called Bortz,
19 B-o-r-t-z, survey.
20   Q.   And have you reviewed any of his
21 testimony?
22   A.   For this proceeding?
23   Q.   No, just in general.
24   A.   I have read his prior testimony, yes.
25   Q.   Okay. And I know he has given prior

467

1   testimony on a number of things, and I don't
2   want to belabor it. Do you recall perhaps what
3   proceeding it might have been in? Was it the
4   one you just referred to?
5   A.   Yes.
6   Q.   Was that the allocation proceeding
7   that was just a month or two ago?
8   A.   Correct.
9   Q.   Have you ever reviewed anything that
10   -- any of his testimony before that?
11   A.   Not that I recall. I might have been
12   given his testimony from prior proceedings, but
13   I just don't recall it sitting here today.
14   Q.   Okay. How about Judith Allen?
15   A.   I don't recognize the name.
16   Q.   Gregory Rosston?
17   A.   Rosston?
18   Q.   Yes.
19   A.   I recognize only the name,
20   R-o-s-s-t-o-n.
21   Q.   That is it.
22   A.   Yeah. I recognize the name. I don't
23   know what he did or where he is from.
24   Q.   Okay. How about Richard Ducey?
25   A.   Ducey? I also recognize the name. I

468

1   think he was involved in the '04-'05 cable, I
2   don't know what he did or who he was engaged
3   by, what kind of background he had.
4   Q.   Do you recall anything about his
5   views?
6   A.   No.
7   Q.   Okay. Have you consulted with any
8   cable system operators in preparation for your
9   testimony?
10   A.   Consulted with? I have read testimony
11   of cable system operators. I have not
12   consulted.
13   Q.   Do you recall the names of the cable
14   system operators you referred to?
15   A.   Sue Hamilton.
16   Q.   Anyone else?
17   A.   I don't recall any other names, no.
18   Q.   And what was the nature of Sue
19   Hamilton's views that informed your work here?
20   A.   Well, she had testimony in this
21   proceeding that we just described, the 2010 to
22   2013 allocation proceeding, that viewing is a
23   critical and integral component.
24   MR. MacLEAN: Objection, Your Honor.
25   I am going to object to the reciting of another

469

1   witness' testimony from another proceeding
2   based on relevance and hearsay.
3   JUDGE BARNETT: What is the relevance
4   of Ms. Hamilton's testimony to this one?
5   MR. BOYDSTON: I guess none.
6   JUDGE BARNETT: Sustained.
7   (Laughter.)
8   BY MR. BOYDSTON:
9   Q.   Would you agree with me that the local
10   ratings of a program cannot be predicted ahead
11   of time by a cable system operator?
12   A.   You know, I don't know because I have
13   talked to cable system operators in the past
14   who, you know, there were certain -- they use
15   the word buzz, certain programs have buzz as
16   they say. I don't know what that term exactly
17   means, other than they expect it to be watched
18   by a lot of people. And so that might mean
19   local ratings.
20   Q.   Okay. Let's assume a situation where
21   you have a distant viewing measurement and it
22   is zero, it reflects a zero or no viewing. And
23   then let's say you have a local viewing
24   measurement that also reflects a zero for the
25   same material.

470

1   Given the high percentage of incidence
2   of zero viewing that do occur in both local and
3   distant viewing, wouldn't one expect there is
4   to going to be a lot of overlapping zeros
5   distant and local for the same programming?
6   A.   As I said earlier, I don't believe the
7   instance of local ratings being zero is that
8   high.
9   Q.   Okay. So you don't think there is
10   much of an overlap?
11   A.   No.
12   Q.   Now, in a situation in which there is
13   an overlap, where a particular program on local
14   information says zero, distant information says
15   zero, they both say zero, in your analysis you
16   are going to come up with a figure that is not
17   zero, that is going to be a positive figure and
18   you do that, correct?
19   A.   And, again, for local ratings -- you
20   keep saying local viewing. For local ratings,
21   Nielsen predicts it. And it is in instances
22   where they don't have enough information, it
23   will be essentially missing, they will say
24   there is not enough information, and so that's
25   not to me the same as zero.

471

1   Q.   Fair enough. In situations where
2   there is not enough information in local and
3   there is a zero viewing measurement in distant,
4   in those kind of situations, you are going to
5   through your analysis, and you do through your
6   analysis provide a positive figure for both
7   those places, correct?
8   A.   Yes. For -- where Nielsen doesn't
9   have enough information for a particular
10 program's local rating, I will use the local
11 ratings for that program type on average for
12 that time of day.
13   Q.   And will that value be the same for
14 programs that are -- that are hitting the same
15 number of subscribers at the same time of day
16 and generate the same number of fees? If
17 that's the case, will they generate the same
18 positive number in your analysis or a different
19 one?
20   A.   So you are saying if this program has
21 the same number of distant subscribers, it is
22 broadcast at the same quarter-hour and it's the
23 same program type, then the regression would
24 predict the same level of distant viewers.
25   Q.   Okay. I refer to fees paid in terms

472

1   of -- instead of program type. I think it's
2   probably fair to say it would be the same if it
3   referred to the same program type and the same
4   number of fees paid. So it covered all of
5   them, right?
6   A.   Right. But, again, the fees paid is
7   this annual measure. And so I was, given your
8   time of day, I was perhaps presuming the same
9   time of day and same year.
10   Q.   I understand. I understand.
11   Now, in prior testimony, I think you
12 said that your methodology results in less than
13 1 percent zero viewing after you apply your
14 analysis, correct?
15   A.   Yes.
16   Q.   So it is accurate to say that you are
17 supplanting the actual measurement of zero
18 viewing or no recordable viewing of distant and
19 local viewing with your prediction?
20   A.   Your Honor, can I go back to my failed
21 hypothetical?
22   JUDGE STRICKLER: You are a glutton
23 for punishment.
24   THE WITNESS: I am, because there was
25 a point to it.

473

1   BY MR. BOYDSTON:
2   Q.   Your, Honor, I will withdraw the
3   question.
4   A.   He is raising it again.
5   JUDGE BARNETT: Thank you.
6   THE WITNESS: But there is value in
7   it, and I was unable to express it. But anyway
8   --
9   JUDGE STRICKLER: Sounds like an
10 article.
11   (Laughter.)
12 BY MR. BOYDSTON:
13   Q.   Now, because you don't have the data
14 to establish distant viewership in a number of
15 situations, you are trying to find this
16 correlation between local viewing and distant
17 viewing. And then that's what gives you the
18 number to fill in for the instances of zero
19 viewing or the local level, insufficient data,
20 correct?
21   A.   I am trying to be like someone with a
22 legal background. I listen to your words very
23 carefully, and I don't know whether or not I
24 should rephrase your question or ask you to do
25 it again because --

474

1   Q.   You can rephrase my question, sure.
2   A.   I think it is better for me to ask you
3   to do it again. Because the way you phrased
4   it, I will say no, I disagree with the way you
5   phrased it.
6   Q.   Okay. We have all these -- well, we
7   have zeros. And your, one of your goals, not
8   your only goal, one of your goals to say, okay,
9   I know that it is like your left-handed
10 analogy, I understand what you are saying. I
11 know they say that in Smithville, there is no
12 left-handed people and that is just wrong and
13 we all know it is wrong. Our survey says it is
14 true, but I know it is wrong.
15   So I am coming up with this mechanism
16 to say, yeah, I know they say there is no
17 left-handers, but because of my analysis, I am
18 going to tell you out of 500 people, there is
19 50 left-handers, correct?
20   A.   Right. And the survey is not true. I
21 think even Mr. Lindstrom would say the surveys
22 tell you in the sample how many left-handed
23 people there are, period.
24   And Nielsen might say there are three
25 out of five. And my regression will tell you,

475

1   no, there are actually .5. And so this three,
2   even though it is quote/unquote actual --
3   JUDGE STRICKLER: Is that because you
4   are averaging the three out of five with other
5   data points that have zero out of five?
6   THE WITNESS: Absolutely. And that's
7   why the zeros are critical to the analysis.
8   JUDGE STRICKLER: They are not
9   discarded, they are used in the averaging
10 that's akin to the regression?
11   THE WITNESS: Absolutely. So the
12 zeros are wrong, and the three is wrong. What
13 is right is what my regression tells you, it
14 is .5.
15   MR. BOYDSTON: Nothing further, Your
16 Honor, Your Honors.
17   CROSS-EXAMINATION
18 BY MR. MacLEAN:
19   Q.   Good afternoon, Dr. Gray.
20   A.   Good afternoon, counsellor.
21   Q.   As you know, I am Matthew MacLean, and
22 I represent the Settling Devotional Claimants.
23 What I really want to ask you is what your
24 impolite analogy was that you wanted to give
25 earlier, but I won't ask that question.

476

1   (Laughter.)
2   I would like you to -- I only have a
3   few questions here. I would like you, if you
4   could please turn to page 28 of your written
5   direct testimony.
6   A.   Yes.
7   Q.   If you could take a look at footnote
8   41 on page 28. I am looking at the first
9   couple of sentences there. And you have
10 testified to this, about this before, but I
11 just want to focus in on what you are saying.
12   You say, "For programs broadcasting
13 outside Nielsen metered markets, I replace
14 their unmeasured local ratings with the average
15 local ratings of retransmitted programs of the
16 same type broadcasting during the same time of
17 day. The Gracenote data assigns each program
18 to a unique program type category, such as game
19 show, movie, network series, or talk show."
20   And this -- is this basically what you
21 were discussing with Mr. Boydston a few moments
22 ago, when you have -- when you are using local
23 ratings for stations that are not in Nielsen
24 metered markets; is that right?
25   A.   That's right, yes.

477

1   Q.   Okay. So, of course, if you are using
2   metered ratings and it is a Nielsen market that
3   doesn't have metered ratings, this is your
4   description of your methodology for how you
5   project local ratings for those programs on
6   those stations; is that right?
7   A.   That's correct, yes.
8   Q.   And, of course, predominantly Nielsen
9   has metered ratings in larger markets, less
10 likely to have metered ratings in smaller
11 markets, so that is a non-random sample of
12 markets if you are looking at those with
13 metered ratings compared to those without
14 metered ratings; is that right?
15   A.   Nielsen tends to put meters where the
16 people are, yes.
17   Q.   And, of course, there are some fairly
18 broad swaths of the country, particularly in
19 rural areas, in the Canada zone, in the rural
20 south and so forth where at least at the time
21 of -- the time period at issue in this case,
22 there were predominantly not metered markets;
23 is that right?
24   A.   That's correct, yes.
25   Q.   Okay. And then if I could -- if I

478

1   could ask you to turn to just as an example
2   Appendix D-1, which is on pages 50 through 52,
3   D-1A, which is on pages 50 to 52 of your
4   testimony.
5   And these are your regression results
6   for, in this particular example, cable,
7   excluding WGN, correct?
8   A.   That's correct, yes.
9   Q.   And if you turn to page 52, you will
10 see that this is your list of program types,
11 correct?
12   A.   Correct, yes.
13   Q.   And these are the Tribune program
14 types, correct?
15   A.   Yes, that's correct.
16   Q.   Or Gracenote, depending on the time
17 period.
18   A.   Indeed.
19   Q.   And, of course, a number of these
20 different program types fall within the Program
21 Suppliers category or at least the Program
22 Suppliers category includes a number of these
23 different program types, correct?
24   A.   That's correct, yes.
25   Q.   So one of the reasons that your

479

1 projection of local ratings might work in the
2 Program Suppliers category is because you do
3 have a number of different program types that
4 you can use to project local ratings. Is that
5 right?
6   A.   That's right, yes.
7   Q.   But in the Devotional category, are
8 you aware that the predominantly the vast
9 majority of Devotional programs all fall within
10 the religious program type on this list of
11 program types; is that correct?
12   A.   Yes, that's correct.
13   Q.   So particularly with regard to the
14 Devotional category, projecting based on
15 average ratings for a program type would be
16 tantamount in those non-metered markets to
17 essentially assuming that all programs of that
18 type have the same local rating?
19   A.   It would be challenging in the
20 Devotional category, yes.
21   Q.   And under your regression results, you
22 found a positive and statistically significant
23 relationship based on your data between local
24 and distant ratings for all years for which you
25 had data; is that correct?

480

1   A.   Local ratings and distant viewing,
2 yes.
3   Q.   Thank you, local ratings and distant
4 viewing.
5   And that -- that positive and
6 statistically significant relationship holds
7 true for all Tribune program categories; is
8 that correct?
9   A.   Yes.
10   Q.   And I will note that under the
11 religious program category, you do have a
12 negative coefficient. And just to be clear,
13 you testified, I believe, that that would
14 suggest, all else being equal, lower ratings
15 for Devotional programming than for whatever
16 you base -- your excluded category is, correct?
17   A.   That's correct, yes.
18   Q.   It doesn't -- it would not be correct
19 to interpret this coefficient as negative
20 viewing; is that right?
21   A.   That's correct, yes.
22   Q.   Okay.
23   A.   I don't know what negative viewing
24 might be.
25   Q.   And so if Dr. Erdem, as you know in

481

1 the Devotional category, and I don't know if
2 you have reviewed his testimony, but I won't
3 ask you if you have, if Dr. Erdem also found a
4 positive and statistically significant
5 correlation between local ratings and distant
6 viewing using a different Nielsen data source
7 for local ratings. Would that be consistent
8 with your own findings?
9   A.   That would be consistent.
10   Q.   Thank you. I have no further
11 questions.
12   JUDGE BARNETT: Thank you. Mr.
13 Olaniran?
14   MR. OLANIRAN: Three questions, Your
15 Honor.
16   JUDGE BARNETT: I am counting.
17   JUDGE FEDER: You want to call your
18 shot, huh?
19   REDIRECT EXAMINATION
20 BY MR. OLANIRAN:
21   Q.   I will make this very quick.
22 Dr. Gray, with regard to the relative market
23 value standard, what type of marketplace do you
24 understand that standard to contemplate? What
25 is the relative market value?

482

1   A.   Well, my understanding is it is the
2 value of programming in this proceeding. I am
3 not sure I follow your question.
4   Q.   Okay. Were you supposed to
5 contemplate a marketplace that's --
6   A.   Yes. My understanding is I was
7 supposed to contemplate a hypothetical market,
8 absent the Section 111, absent Section 119.
9   Q.   And what would be sort of the typical
10 elements of that hypothetical market?
11   A.   There would be, you know, the
12 copyright owner negotiating with the broadcast
13 station in the primary market. And then, as I
14 described, presumably with a surcharge, an
15 ability to retransmit that program as a bundle
16 with other programming in a line-up that they
17 develop to cable systems and satellite systems
18 in the secondary market.
19   Q.   And with regard to the values you
20 calculated for the programs from a willing
21 buyer, willing seller perspective?
22   A.   Yes.
23   MR. OLANIRAN: Thank you. That's all
24 I have, Your Honor.
25   JUDGE BARNETT: Thank you.

483

1   MR. BOYDSTON: Just a couple things.
2   RECROSS EXAMINATION
3   BY MR. BOYDSTON:
4   Q.   With regard to your report at page 28
5   at footnote 41 that talks about the time of
6   day, how is it that you made a decision to use
7   six time of day intervals the way you did as
8   opposed to quarter-hours, for instance, that
9   are more often done?
10   MR. OLANIRAN: I am not sure. I don't
11   believe I covered that. Objection, Your Honor.
12   MR. BOYDSTON: I believe the SDC did.
13   That's why -- that's where I got it from.
14   JUDGE BARNETT: I don't know if
15   anybody did in oral questioning, but it is in
16   the written testimony so he can ask about it.
17   THE WITNESS: I think the problem with
18   doing it at the quarter-hour level is I just
19   wanted to make sure to get enough observations
20   to calculate a meaningful average local ratings
21   statistic.
22   BY MR. BOYDSTON:
23   Q.   How is it that you are able -- how is
24   it that choosing the six intervals that you did
25   achieved that?

484

1   A.   Well, that would give more programs
2   that actually had local ratings information
3   from which I could calculate average local
4   ratings for that program during that time of
5   day.
6   Q.   Okay. Looking at -- I am trying to
7   find it again -- Exhibit D-1, and looking at
8   the different category of numbers that Mr.
9   MacLean had directed you to, he had focused in
10   on the religious, the number for the religious
11   category.
12   Now, I notice here the second to last
13   one is called -- it says team versus team. Is
14   that a sporting nature, is that something of a
15   sporting nature, I gather?
16   A.   Yes.
17   Q.   And it lists the figure listed is a
18   negative number, negative 7. -- or, excuse me,
19   negative 07 -- negative 0.72, et cetera.
20   A.   Yes.
21   Q.   That would say that it is team versus
22   team programming is worth less than the
23   constant, which I think you said is arts
24   program?
25   A.   Arts program is my recollection, yes.

485

1   Q.   But then two spaces above that it says
2   sports-related and it lists a positive figure
3   of 0.44. Do you see that?
4   A.   Yes.
5   Q.   And it seems contradictory just
6   because one is sports related, one is team
7   versus team. Do you understand why there is a
8   distinction like that?
9   A.   The way I would respond is apparently
10   people are watching on a distant basis
11   sports-related programming more so than
12   so-called team versus team programming, you
13   know, the data tell you what is going on in the
14   real world.
15   Q.   Okay. I mean, just to go up a few
16   above that there is also another sports one
17   that says pseudo-sports that also has an even
18   more dramatic positive number, right, 0.97, et
19   cetera.
20   A.   That's correct, yes.
21   Q.   So there again, I mean, do you
22   yourself have any understanding why it is that
23   these certain sports programs are so much more
24   popular or have so much better ratings than the
25   team versus team?

486

1   A.   So you are asking me why do people
2   watch programming?
3   Q.   No, no. I am asking you if you have
4   an explanation as to why there is this apparent
5   dichotomy between one sports category on this
6   list, team versus team, and these other two?
7   A.   I would answer the data say what the
8   data say. This is what people are viewing on a
9   distant basis.
10   Q.   Okay. And, in other words, this is
11   just the data that you got, you are not a
12   sociologist who can opine or wants to opine as
13   to why people would watch pseudo-sports more
14   than team versus team?
15   A.   I am not knocking on doors in Topeka
16   saying why are you watching this particular
17   program.
18   Q.   Thank you. Nothing further.
19   MR. MacLEAN: If I could just ask one
20   question based on that.
21   JUDGE BARNETT: You may.
22   RECROSS-EXAMINATION
23   BY MR. MacLEAN:
24   Q.   When you are looking at in this
25   instance, a positive coefficient versus a

487

1 negative coefficient, something like that, that
2 doesn't mean necessarily more viewing compared
3 to less viewing, it means more viewing for a
4 given number of -- a given local rating or less
5 viewing for a given -- more distant viewing for
6 a given local rating or less distant viewing
7 for a given local rating?
8   A.   Thank you. I could have given a
9 longer answer. I was debating it in my head.
10 But, yeah, for example, what you are likely to
11 have is team versus team programming is going
12 to be on stations with many distant
13 subscribers.
14   And so the very first coefficient, log
15 of market size, what is likely going to happen,
16 this is all else equal, a program that's team
17 versus team might be highly distantly viewed,
18 and that's going to be measured and captured by
19 the market size because it has many distant
20 subscribers.
21   And then this one particular
22 coefficient is negative, but that does not mean
23 that team versus team sports are not being
24 viewed. It just means that all else equal, as
25 economists like to say over and over, it is

488

1 lower. The key is well, what do you mean by
2 all else equal? The market size, the ratings,
3 the time of day, et cetera.
4   That doesn't mean that people aren't
5 watching team versus team sports.
6   Q.   Thank you.
7   JUDGE BARNETT: Anything from the
8 bench? Thank you, Dr. Gray.
9   THE WITNESS: Thank you.
10   JUDGE BARNETT: You may be excused.
11   (The witness stood down.)
12   JUDGE BARNETT: Counsel, thank you for
13 wrapping this up today. We don't have any
14 other witnesses, correct?
15   MR. BOYDSTON: No.
16   JUDGE BARNETT: Just double-checking.
17 Okay. Then we will hear from you.
18   Mr. MacLean informed me yesterday we
19 had signed an order, but apparently I was out
20 to lunch the day that happened.
21   So --
22   MR. MacLEAN: You were on vacation at
23 the time, Your Honor.
24   JUDGE BARNETT: Oh, that's what
25 happened. No wonder. I felt so out of it.

489

1   What's the next date on that order?
2 It should be proposed findings and conclusions,
3 correct?
4   MR. MacLEAN: There is not a date set.
5   JUDGE BARNETT: Okay. We will be glad
6 to hear from you on your thoughts on that. I
7 know, we kind of jammed you up on the last one,
8 so --
9   MR. OLANIRAN: I wasn't going to say
10 anything.
11   (Laughter.)
12   JUDGE BARNETT: How much time do you
13 need to prepare proposed findings and
14 conclusions in this matter?
15   MR. OLANIRAN: We probably need to
16 consult a little.
17   JUDGE BARNETT: Why don't you do that.
18 Consult with one another, let us know if you
19 come up with an agreed schedule, and we will
20 look at it and see how it fits into our
21 calendar.
22   And if you cannot come up with an
23 agreed schedule, let us know that and we will
24 deal with it.
25   Thank you very much. We're at recess

490

1 until we reconvene for closing argument.
2   JUDGE FEDER: Close the record?
3   JUDGE BARNETT: Yes, the record is now
4 closed. We will accept proposed findings and
5 conclusions, and we will make a record of
6 closing arguments, but as you know I've
7 repeated -- have said repeatedly, the arguments
8 and statements of counsel are not evidence. So
9 that will not be added to the evidence.
10   Thank you very much.
11   (Whereupon, at 3:30 p.m., the hearing
12 concluded.)
13
14
15
16
17
18
19
20
21
22
23
24
25

491

1   C O N T E N T S
2 WITNESS: DIRECT   CROSS   REDIRECT   RECROSS
3 PAUL LINDSTROM
4   By Ms. Plovnick 281
5   By Mr. Boydston (Voir Dire: 287)
6   By Ms. Plovnick 290
7   By Mr. Boydston   325
8   By Ms. Nyman   361
9   By Ms. Plovnick   364
10   By Mr. Boydston   367
11 JEFFREY GRAY
12   By Mr. Olaniran 370
13   By Mr. Boydston   401
14   By Mr. MacLean   475
15   By Mr. Olaniran   481
16   By Mr. Boydston   483
17   By Mr. MacLean   486
18
19   AFTERNOON SESSION: 369
20
21   CONFIDENTIAL SESSIONS: NONE
22
23
24
25

492

1   E X H I B I T S
2 EXHIBIT NUMBER: MARKED/RECEIVED   WITHDRAWN
3 8000   276
4 8001   292
5 8002   377
6 8003   278
7 8004-8014   278
8 8015   278
9 8016   278
10 8017   278
11 8018   278
12 8019   278
13
14
15
16
17
18
19
20
21
22
23
24
25

493

1   CERTIFICATE
2
3   I certify that the foregoing is a true and
4 accurate transcript, to the best of my skill and
5 ability, from my stenographic notes of this
6 proceeding.
7
8
9 4/16/18   Karen Brynteson
10 Date   Signature of the Court Reporter
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

/

// [1] 369:25

0

0.44 [1] 485:3
0.72 [1] 484:19
0.905276 [1] 438:11
0.97 [1] 485:18
00 [1] 435:9
03 [1] 435:9
04 [2] 333:1 397:6
04-'05 [1] 468:1
07 [2] 397:7 484:19
08 [1] 300:22
09 [1] 300:22

1

1 [9] 307:9 375:18 389:5,9 410:13
 421:16,24 422:8 472:13
1,000 [4] 322:14 422:21 424:23
 425:5
1.28 [1] 413:6
1.3 [2] 412:25 413:11
1.68 [3] 396:3,4,7
1.8 [3] 412:12,13 413:10
1/48th [2] 411:15,16
1:03 [1] 369:2
10 [20] 267:19 306:20 307:8 317:10
 422:19,24,25 423:16,20,25 424:9,
 12,17,18,20 425:6,9 426:24 444:
 22 445:6
10,000 [2] 322:6,15
10:19 [1] 281:9
100 [6] 316:7,7 318:2 360:7 450:11,
 11
101 [1] 267:17
10786 [1] 268:5
11:13 a.m [1] 324:22
11:19 [1] 324:23
111 [2] 455:11 482:8
119 [2] 455:11 482:8
12 [3] 383:24 448:15,16
12:10 [1] 368:3
12:55 [1] 368:1
1200 [1] 269:7
1233 [1] 268:22
136 [1] 411:9
14 [1] 400:14
15 [3] 281:5 444:22 445:6
16 [3] 355:17 428:12,13
166,000 [1] 392:8
17 [5] 271:10 272:16,23,25 275:11
1818 [1] 268:15
1978 [1] 287:11
1993 [1] 332:9
1998/1999 [1] 459:24
1999 [1] 373:18

2

2 [4] 390:8 391:15 412:6,7
2,000 [2] 306:22,25

2.04 [1] 411:16
2.7 [2] 411:8,9
2:34 p.m [1] 453:12
2:52 [1] 453:13
20 [1] 323:1
20,000 [2] 306:19 322:3
200 [3] 307:10 311:21 322:2
2000 [49] 276:14 290:20 291:4 297:
 2,3 298:4 300:7 303:5 312:12 319:
 20 344:18 346:12,23 347:1,16
 349:11 373:16,18 374:19 383:1,9,
 20 384:1 385:18 392:24 394:18
 395:24 397:11,14 398:14 403:13
 404:7 405:15 411:20 412:8,23
 413:3,19 418:11,16,23,24 419:10,
 21 420:22 421:4 429:3,21,24
2000-2003 [9] 327:14 344:21 345:
 2,13 347:10 383:10 399:24 405:4
 421:20
2000-2009 [3] 349:5 420:23 421:9
2000s [1] 298:13
2001 [2] 332:11 355:16
2003 [29] 276:14 290:20 297:3 298:
 4 300:7 303:5,6 319:20 344:19
 345:12 346:12,23 347:1,16 373:
 16 383:2,20 385:19 395:25 398:
 15 403:13 404:7 418:12,16,23,24
 429:4,21,24
20036 [3] 268:16,23 269:8
2004 [21] 297:4 369:20 373:19 374:
 20 383:3,16,21 384:1 389:22 390:
 1,24 391:3,23 392:19,25 396:1,17
 397:15 399:5,10 459:25
2005 [1] 392:20
2007 [3] 384:22 385:2 396:18
2008 [19] 300:12 301:18 310:8 319:
 22 347:23,25 376:15 383:4,22,22
 386:24 392:18 396:6 397:2 398:
 21 403:1 404:8,24 421:21
2008-2009 [6] 290:24 303:10 310:
 24 395:6,8 405:2
2008/2009 [4] 418:25 419:6 421:
 22 429:22
2009 [34] 291:4 300:12 301:19 310:
 8 312:12 319:22 347:23 348:1
 349:12 373:18,19,19 374:19,20
 383:5,9,22,23 384:23 385:2 396:6
 397:3,12,14,16 398:21 403:1 404:
 9,24 419:10,21 420:22 421:4,21
2010 [3] 373:21 461:10 468:21
2011 [1] 461:10
2013 [2] 373:21 468:22
2016 [12] 300:18 326:18 366:4,9,
 11,16,16 375:24 393:3 400:15
 401:16 452:13
2017 [1] 292:3
2018 [1] 267:19
202-355-7917 [1] 268:17
202-408-7600 [1] 268:24
202-663-8183 [1] 269:9
20th [1] 268:22

21 [4] 271:10 272:17 275:11 392:1
210 [3] 362:25 363:2,14
213-624-1996 [1] 268:7
215 [1] 327:16
22 [3] 325:25 326:3 327:9
22nd [1] 375:24
23 [3] 389:8 410:15 438:7
23821 [1] 369:16
23822 [1] 369:17
24 [4] 303:1 383:23 390:8 412:7
25 [2] 391:11 412:18
26 [2] 392:5 459:25
26th [1] 332:11
27,747 [1] 411:23
276 [1] 492:3
278 [7] 492:6,7,8,9,10,11,12
28 [3] 476:4,8 483:4
281 [1] 491:4
287 [1] 491:5
29 [3] 376:13 392:9 413:15
29,000 [1] 389:23
29,342 [1] 389:23
290 [1] 491:6
292 [1] 492:4

3

3 [5] 391:11 398:20 412:17,19 423:
 18
3.37 [3] 411:25 412:2 413:10
3.86 [1] 396:8
3:30 [1] 490:11
30 [4] 317:10 334:12 391:17,18
300 [2] 439:10,11
300,000 [1] 392:3
30th [1] 369:20
32 [2] 327:8,9
325 [1] 491:7
33 [3] 328:19,20 389:19
33,662 [1] 390:2
35 [1] 360:7
351.4(b)(2 [1] 276:17
36 [5] 410:21 411:5 428:10,10,13
361 [1] 491:8
3613 [2] 460:2 465:2
364 [1] 491:9
365 [1] 303:2
367 [1] 491:10
369 [1] 491:19
370 [1] 491:12
377 [1] 492:5
38 [1] 461:7
39 [2] 282:12 410:14

4

4 [9] 327:15 376:13 392:10,13,14
 413:14,14 414:6 423:18
4/16/18 [1] 493:9
40 [8] 316:16 339:2,8,22,25 340:1
 360:7 438:10
400,000 [1] 298:16
401 [1] 491:13
41 [4] 412:17,19 476:8 483:5

43 [1] 441:25
45-minute [1] 367:25
46 [1] 413:18
475 [1] 491:14
48 [1] 410:24
481 [1] 491:15
483 [1] 491:16
486 [1] 491:17
4th [8] 366:11,16 393:2,7 401:18,
 19 444:3 452:13

5

5 [7] 394:11 422:25,25 425:9 444:2
 475:1,14
5,000 [11] 298:14 303:8 331:3 337:
 21 341:8,12,16,19 423:15 424:23,
 23
5,366 [1] 391:5
50 [4] 335:4 474:19 478:2,3
50,000 [1] 337:24
500 [4] 323:22 360:5 425:5 474:18
500,000 [5] 337:24 341:5,13,21
 342:15
51 [1] 441:9
52 [4] 428:14 478:2,3,9
526,835 [1] 390:24
555,310 [1] 391:4
563,000 [1] 427:3
5th [1] 401:16

6

6 [8] 426:20,23 427:18,21,23 430:
 25 431:7,15
60 [4] 316:14 391:19,19 423:2
60/80 [1] 423:9
643 [1] 390:4
65 [3] 320:22 352:16,18
66450 [2] 334:23 335:3
665 [1] 335:3
69 [1] 369:16

7

7 [6] 293:5 303:1 365:5,7 383:23
 484:18
7,821 [1] 390:25
7:15 [1] 293:5
70 [4] 320:21 423:2,17 425:1
7001 [1] 271:12
703 [1] 268:22

8

8 [1] 428:13
80 [3] 423:2 428:8,12
800 [4] 307:12 309:14,16 310:3
8000 [5] 275:22 276:2,5,7 492:3
8001 [8] 291:17,19 292:9,11,14
 365:4 366:3 492:4
8002 [11] 375:19 376:6,25 377:5,8,
 9 389:3,6,8 390:9 492:5
8003 [4] 278:7,16,20 492:6
8004 [5] 276:10,19,21 278:1,3
8004-8014 [1] 492:7

8011 [2] 277:6,20
8014 [5] 276:11,20,21 278:1,3
8015 [4] 278:7,16,20 492:8
8016 [2] 278:20 492:9
8017 [2] 278:20 492:10
8018 [2] 278:21 492:11
8019 [4] 278:7,16,21 492:12
89 [3] 331:6,13 389:20
8th [1] 268:15

9

9 [1] 438:17
9:33 [2] 267:21 270:2
9:45 a.m [1] 281:8
90 [1] 322:17
90024 [1] 268:6
928 [1] 389:24
94 [5] 332:9 426:22 428:15 452:1,4
95 [1] 332:9
96 [1] 332:9
969 [1] 411:24
97 [1] 332:9
99.28 [1] 392:18
99.39 [1] 399:16
99.45 [1] 399:16
99.54 [1] 392:24
99.59 [1] 399:7
99.60 [2] 392:19 399:8
99.71 [1] 399:18
99.73 [1] 399:18
99.78 [1] 376:21
99.79 [1] 376:21
99.87 [2] 392:25 399:12

A

a.m [4] 267:21 270:2 281:9 324:23
ABC [1] 443:2
ability [4] 302:25 462:7 482:15 493:5
able [19] 279:13 287:5 293:12 298: 7 310:20,25 313:22 314:13 319:7 324:14 341:14 348:12 356:5 358: 9 361:16 381:24 397:17 463:13 483:23
above [5] 317:20 410:19 464:18 485:1,16
absence [3] 270:12 396:24 397:6
absent [4] 393:20 455:11 482:8,8
absolutely [3] 294:12 475:6,11
accept [1] 490:4
acceptable [2] 280:23 378:12
accepted [2] 378:10,11
access [1] 387:15
accommodate [2] 356:7 434:14
accorded [3] 408:10 415:15 416: 13
according [2] 413:8 416:14
accordingly [1] 323:8
accurate [17] 313:13 314:2,3 331: 14 335:24 343:16 396:13 412:3, 14 414:4 418:9 423:21 446:11,22 447:23 472:16 493:4

achieved [1] 483:25
acquired [1] 379:12
acquisition [2] 379:24 402:2
across [12] 280:16 311:21 340:6 352:14 353:8,17 357:18 390:7 425:5 439:17 440:14 441:7
actors [1] 381:18
actual [7] 413:12 423:12 430:23 456:13 462:24 472:17 475:2
actually [30] 284:12 294:18 307:23 316:19 318:24 319:25 320:6 326: 1 329:10 334:3 337:4 343:9,17 344:9 353:15 354:22 357:10 399: 11 410:18 414:8 422:5 426:17,18 430:4 432:14 435:1 442:4 460:15 475:1 484:2
ad [3] 284:3 287:3 367:20
adapting [1] 355:12
add [3] 307:12 318:6 324:9
added [4] 388:21 411:21 412:9 490:9
adding [4] 340:10,10 397:2 405:7
addition [3] 302:20 402:25 436:5
Additional [16] 296:8,20 302:1 356:10 359:22 366:14 374:1 393: 12 396:9,10 399:13 402:1,16 403: 1 404:23 425:20
additions [1] 376:11
address [2] 295:20 355:8
address-based [2] 305:12 362:12
addressed [1] 408:19
addresses [4] 296:1 305:4 361:17, 19
addressing [2] 342:11 417:13
adequately [2] 335:12 462:10
adjust [4] 377:13 386:19 444:4,9
adjusted [1] 377:15
administrative [1] 371:13
admission [5] 275:25 276:2,10,17 377:5
admit [1] 292:8
admitted [6] 276:6 277:20 278:2 292:11 327:19 377:8
advantage [1] 400:7
advertisers [3] 286:3 312:8 363: 18
advertising [4] 287:5 312:1 367: 14,18
advice [1] 408:23
advisory [3] 370:24 371:5,18
affect [1] 446:17
affiliate [3] 441:20,21 443:11
affiliated [2] 441:24 443:10
affiliation [3] 437:22 441:10,10
afternoon [12] 361:6,7,9 369:1,3 370:3 401:3,6 453:10 475:19,20 491:19
agencies [4] 286:3 312:8 363:23 370:22
aggregate [23] 314:14 321:17 330: 13 336:2,5 337:18 338:11,24,25

339:19,20,24 340:13,18,25 341:18, 22 342:23 360:9,12 425:4 443:22 444:17
aggregated [4] 317:22 323:9 379: 16 411:21
aggregates [1] 342:21
aggregation [6] 318:13 338:12,15 339:4 340:12 342:1
ago [9] 297:8 310:17 347:21 370: 18 384:11 409:12,25 467:7 476: 22
agree [10] 294:10 295:3 336:4,9 341:9 353:6 401:24 406:8 411:1 469:9
agreed [4] 275:25 440:13 489:19, 23
agreed-to [1] 440:12
agreement [1] 333:18
agrees [1] 274:23
ahead [3] 270:12 301:12 469:10
aired [1] 436:12
airing [2] 408:5 410:6
airs [1] 441:23
akin [1] 475:10
ALESHA [1] 268:12
Allen [1] 467:14
allocation [7] 373:20 374:18 377: 21 387:3 466:15 467:6 468:22
allow [2] 311:10 393:9
allowable [1] 416:8
allowed [1] 406:19
alluding [1] 341:2
almost [3] 284:5 396:13 413:11
already [9] 292:22 307:10 408:19 424:2,3,4,9 452:3 459:21
alter [1] 334:25
alternatives [1] 416:7
although [1] 288:18
ambiguity [1] 405:12
amenable [1] 279:10
America [1] 326:7
American [1] 372:20
among [6] 295:15 299:22,23 309:7, 8 380:18
amongst [1] 458:10
amount [7] 314:25 350:24 353:22 358:7 412:10 445:12,13
analogous [2] 274:11 371:16
analogy [9] 315:17 424:12,14 425: 11 426:4,8 431:9 474:10 475:24
analyses [16] 289:6 296:25 297:5, 7 298:21 300:17,22 302:6 308:10 309:19 310:7 313:21 321:8 326: 24 353:1 359:20
analysis [33] 282:23 284:6,10,11, 21,25 285:7,24 288:9 289:18,22 290:19,22 292:21,22,24,25 297:11, 19 298:3 300:4,10,13,14,21 301: 18 308:17,19,21,24 312:2,3 314: 22 318:14 319:8,10,19,21 320:11 344:17,18 345:6 346:14,16 347:

10,15,22 349:13,18 365:12 379:14 382:10,21 384:3 389:2 394:6 396: 10 397:8 399:25 400:14 404:20, 20 405:17 408:22 410:4 417:14 429:17 433:15,15 438:3 439:4 443:6 446:19 448:22 457:4,24 470:15 471:5,6,18 472:14 474:17 475:7
Analytics [5] 370:14,15,19 371:3 427:8
analyze [1] 310:9
analyzing [1] 284:24
Angeles [1] 268:6
animal [1] 442:21
annual [7] 394:19,22 406:6 432:9 444:9 446:7 472:7
another [15] 305:23 329:7 334:4 371:23 389:25 422:9 423:18 436: 13 439:16 448:15 455:5 468:25 469:1 485:16 489:18
answer [20] 288:18 289:4,5 306: 13 317:4 329:24 340:4 347:19 355:24 356:16,20 364:6,16 367:9, 16,19 434:16 450:14 486:7 487:9
answered [2] 406:17 431:18
answering [1] 329:24
answers [1] 285:18
anticipate [2] 270:6 403:9
anticipatory [1] 329:9
anybody [3] 317:7 363:25 483:15
anyway [4] 294:17,20 466:9 473:7
apologize [2] 381:4 426:5
apparent [1] 486:4
apparently [2] 485:9 488:19
appeal [1] 286:21
appear [6] 407:18 442:19 447:1,8 449:14,16
APPEARANCES [1] 269:1
appears [2] 413:16 442:20
appendix [5] 374:5,6,6 437:1 478: 2
applicable [2] 378:5 381:15
applied [2] 372:9 385:1
applies [2] 272:21 425:12
apply [4] 273:18 274:8,15 472:13
applying [1] 273:18
appreciate [1] 346:7
approach [5] 274:25 398:3 420:18 459:14 460:18
approaches [1] 363:4
appropriate [2] 307:14 378:14
approximately [2] 410:21,24
April [3] 267:19 333:1 369:19
apropos [1] 315:14
area [4] 272:8 288:4 289:25 373:9
areas [10] 290:3 305:7 306:5,6 342: 5 362:17,18,22 373:10 477:19
aren't [4] 354:2 427:15 429:14 488: 4
arguably [1] 274:5
arguing [1] 272:6

argument [5] 280:21 416:6 431:14 441:6 490:1
arguments [3] 280:13 490:6,7
ARNOLD [1] 268:20
around [7] 286:22 295:4 296:17 306:12 310:12 322:3 410:14
arrows [1] 451:17
art [1] 438:18
article [1] 473:10
articulated [1] 455:5
artificial [1] 440:17
arts [5] 438:5,6,13 484:23,25
aspect [1] 435:14
aspects [3] 274:10 283:14 312:17
assembling [1] 378:25
assertion [1] 271:14
assessment [4] 314:7 318:23 336: 5 401:24
asset [1] 455:25
assigns [1] 476:17
assist [2] 326:20 327:2
assistance [2] 274:12 275:3
associated [8] 314:5 321:7 340: 24 348:18 374:21 380:18 407:17 445:24
Association [1] 326:7
assume [3] 302:16 407:16 469:20
assumed [2] 428:9 443:9
assuming [2] 463:11 479:17
assumption [3] 440:4,5,25
assumptions [2] 337:5 440:1
attached [1] 374:5
attachment [2] 277:22,23
attain [1] 396:22
attempt [2] 274:15 289:14
attempted [1] 356:9
attempting [2] 356:11,22
attend [1] 280:18
attention [2] 365:3 459:19
attract [2] 273:8 458:14
attracting [1] 378:23
attributed [3] 330:4 335:22 446: 18
attributes [3] 335:19 343:7 464:2
audience [17] 273:6,7,15 284:4 286:14 287:4,20 290:7 293:25 317:25 318:4 352:7 353:5,11,21 363:20,24
audiences [5] 313:1,12 317:14 324:12 350:25
augmentation [1] 307:15
augmented [6] 295:20 305:25 395:5 396:5 400:17 421:21
August [3] 366:4,16 375:24
auspices [1] 283:3
availability [2] 342:17 427:25
available [17] 273:14 279:8 297: 24 302:4 303:13 310:20 314:13 350:11 353:24 356:19 357:23 358: 14 359:2 367:18 432:3,4 443:18
Avenue [2] 267:17 268:5

average [31] 317:2,13 318:7,19,20 321:13,23 322:1,13 323:1 350:17 399:14 414:7,9 420:14 425:9,14, 16,19 426:10,23 429:14 439:17 444:5 451:1,20 471:11 476:14 479:15 483:20 484:3
averaged [2] 317:14 321:16
averages [3] 314:15 319:3 343:4
averaging [3] 426:19 475:4,9
avoid [1] 302:7
aware [6] 353:13 357:8,9 401:15 445:5 479:8
away [2] 297:22 426:16

B

B-o-r-t-z [1] 466:19
BA [1] 370:9
Bachelor's [1] 282:9
back [23] 280:21 281:6 287:10 310: 23 334:25 338:16 354:7 355:13, 15 357:1 359:20 381:4 388:4 397: 4 424:4,11 429:13 439:10 441:9 456:20 461:10 462:13 472:20
background [4] 282:8 370:8 468: 3 473:22
bad [1] 316:10
ballpark [1] 411:17
bargain [1] 462:7
BARNETT [105] 267:11 270:3,18 275:13,19 276:5,19,23 277:1,4,25 278:13,18 279:14 280:1,9,20 281: 10,18 287:23 290:2,10 292:11,13 294:9 305:22 306:8 308:6 321:18 323:11 324:20,24 327:21 328:2,6 329:1,21 331:18 332:13,16,22 333:3,21,24 339:10 345:25 347:2, 7 360:25 361:3 364:19 366:19 367:1,23 369:3,10,14,18,21,24 374:12 377:8 398:5 400:22,24 401:13 408:25 409:20 410:15 415: 6,16 416:5 417:1,7 431:19 434:3, 15 440:21 447:19 448:9,13,17,20, 25 453:9,14 459:15 460:19 469:3, 6 473:5 481:12,16 482:25 483:14 486:21 488:7,10,12,16,24 489:5, 12,17 490:3
base [5] 394:13,18 405:11 444:4 480:16
baseball [3] 425:22,25 426:3
based [45] 287:16 288:23,24 289:2 299:15 305:3 319:2 334:17 347: 11,16 349:13,16 350:18 351:2 363:5,7,9 374:22 383:6 385:19 395:6,24 399:24 408:11 413:20 414:6,7 421:19 423:14 426:19 427:24 428:23 429:17 433:11 438: 21,22 445:7,21,23 451:19 457:2 469:2 479:14,23 486:20
baseline [2] 405:14,18
basically [8] 304:7 306:24 307:4 412:20 427:18,23 429:12 476:20

basis [32] 291:3 293:10,20 301:13 321:25 334:7 358:20 370:23,24 371:19 378:3,4 382:11 384:8 385: 3,15 386:13 388:6,18 394:8 397: 19 406:13 420:11,13 427:14 432: 9 438:19 443:13 456:23,25 485: 10 486:9
bathroom [1] 324:19
bear [1] 296:12
bears [2] 274:1 378:25
became [2] 296:17 302:19
become [1] 301:25
becomes [1] 304:13
began [3] 297:20 302:2 328:9
begin [10] 321:11 322:14 323:1,18, 25 324:12 362:8 369:10 428:4 452:2
beginning [7] 316:17 326:3 335: 18 352:11 433:9 453:19 460:23
begins [8] 327:11 335:10,16 354: 10,11 460:10 464:19 465:3
begun [2] 301:25 357:19
behalf [7] 268:2,9,19 269:2 356:12 466:16,17
behind [2] 293:21 326:24
belabor [1] 467:2
belief [4] 417:5,6,6 457:21
believe [54] 279:22 287:11 299:1 305:23 309:1 325:11,22 326:13 329:11,15 331:5 332:18 333:6,15 345:10 346:16 354:23 355:1 362: 21 374:6 397:25 401:9 402:7 403: 24 405:18 409:24 414:17 416:15 421:1,2,15 423:20 431:14 432:16 433:5,12 435:3,5 438:5 442:2,4, 20,24 453:20 454:7,9 456:10 458: 1,3 466:17 470:6 480:13 483:11, 12
belong [5] 382:19 408:4,14,15 410: 8
belongs [1] 407:12
below [6] 313:17,19 314:23 327: 15 422:8 460:14
bench [3] 271:16 332:14 488:8
benefit [2] 374:24 375:4
Berlin [1] 272:10
Berlin's [1] 275:1
besides [1] 450:5
best [3] 315:17 462:5 493:4
better [6] 318:14 396:13 409:19 465:14 474:2 485:24
between [25] 271:16 333:18 334: 25 366:15 381:5 384:4 387:10 390:5 391:8 393:23 394:1,24 395: 1 400:1 402:9 403:16 404:19 428: 24 430:6 440:23 457:2 473:16 479:23 481:5 486:5
beware [1] 319:5
beyond [5] 271:15 310:24 336:18 367:8,20
bias [1] 302:11

big [6] 318:5 320:25 342:14 361:20 424:5 428:24
bigger [2] 324:6 341:10
biggest [1] 301:23
billion [1] 320:21
binder [4] 291:13 325:25 375:14, 15
bit [15] 280:24 288:19 306:12 307: 5 310:11 318:5 321:2 329:9 384: 11 388:10 413:24 415:22 424:16 426:16 442:21
black [2] 291:12 375:15
blank [1] 320:2
blocks [1] 295:22
board [12] 315:16 316:4 318:1 336: 15,17 337:15,23,25 338:19 352:14 353:8 357:19
body [1] 373:9
booklet [2] 293:1,4
books [1] 367:11
Bortz [1] 466:18
Boston [1] 307:22
both [29] 279:7 282:17 284:13 294: 21 295:19 298:24 308:21 312:6 350:23 369:23 377:25 382:5 383: 5,14 384:19,21 386:20 388:6,8 391:22 394:5 395:10 414:20 420: 8 422:5 462:18 470:2,15 471:6
bottom [4] 283:9 354:9,10 437:12
bounce [1] 343:3
BOYDSTON [112] 268:3,4 276:4, 24 277:5,21 279:9 280:9,19 287: 21,25 288:2 289:23 292:10 324: 18,25 325:1,3,5 327:18,22,23 328: 5,7 329:25 330:1 331:22 332:6,15 333:25 334:1,2 339:12,16 345:17, 22 346:2,7,9,25 347:4,5,8 352:10 360:23 366:25 367:3,22 374:10 377:6 400:24,25 401:2,4,14 405:1 409:3,5,14,21,22,23 410:16,17 415:7,9,18 416:10 417:2,3,10 418: 3 426:14 431:20 434:4,8,19 435: 12 440:22 447:13,21,22 448:11,14, 19 449:3 451:24 453:15,16,17 459:13,16 460:21 464:13 465:1,8 469:5,8 473:1,12 475:15 476:21 483:1,3,12,22 488:15 491:5,7,10, 13,16
Boydston's [2] 270:13 416:6
break [7] 281:1 324:19 333:23 367: 25 409:1 453:8,10
BRIAN [4] 268:3 288:1 325:5 401: 3
bricks [1] 335:23
brief [1] 361:10
briefed [1] 357:6
briefly [6] 287:21 298:19 312:13 370:7 373:2 386:7
bring [2] 307:13 407:9
British [1] 408:8
broad [5] 289:3 347:2 352:3 367:9

477:18
broadcast [27] 272:2 273:11 283: 19 286:2,2 320:21 323:12 352:21 357:25 380:8 408:11 410:1 443:6 445:22,25 446:16 449:9 454:21 455:7,8 456:1,2 457:9 458:6 462: 19 471:22 482:12
broadcaster [2] 455:20 456:7
broadcasters [2] 363:17 364:11
Broadcasting [3] 408:8 476:12, 16
broadcasts [8] 339:3,23 389:14 406:24 407:19,23 408:5 431:22
broader [1] 361:23
Broadly [1] 379:21
brought [1] 360:16
Brynteson [2] 267:24 493:9
BUDRON [1] 268:13
Building [1] 267:16
built [1] 364:2
bundle [1] 482:15
bundled [1] 457:13
bundling [2] 462:1,2
business [6] 282:24 286:17 312:6 320:22 359:17 451:11
buttons [3] 297:15 301:6 304:11
buy [3] 312:6 367:10,11
buyer [4] 454:18 455:4,6 482:21
buying [1] 311:25
buzz [2] 469:15,15

C

CA [1] 268:6
CABLE [114] 267:6,9 272:3 273:9, 12 276:14 283:18,18 286:1,1,13 287:1,20 290:7,20,25 297:3 298: 21,23 299:6,11,22,23,24 308:10, 16 309:8,10,15,24 310:3,4 312:7 320:20 322:22 323:16,21 324:6 332:9 342:12,25 343:2 352:21 357:14,14,15 358:22 363:17 367: 5,10,13,17 372:11 373:16,19,21 374:20 377:25 378:20,21 379:22 380:9,11 382:4,5 383:2,5,12,14 384:20,21 388:7,8,15 389:16 390: 25 391:22 392:16 393:10 394:21 395:8,9,11,11 396:1,7 397:15 398: 16,23 399:14 406:3,3,14 411:5,8 427:3,3 437:6 443:23 453:5 454:2, 19 456:5 457:11 459:24 461:25 468:1,8,11,13 469:11,13 478:6 482:17
calculate [29] 350:14,16 374:21 379:4,10,14,17,19 387:3,8 409:8 415:13,19 416:11 419:23 420:3, 11,19,20 421:8,12,14 429:14 430: 5 451:15 456:19,24 483:20 484:3
calculated [12] 331:23 388:2,21 392:16 411:16 412:24 430:8,11, 17 436:19 439:5 482:20
calculates [1] 391:16

calculating [2] 425:18 429:19
calculation [19] 334:6,19 350:18 351:10 377:20 407:2 414:12,23 416:22 419:20 427:24 429:12 439: 8,12,13,21 443:14,25 445:23
calculations [10] 283:15 320:4 376:19 379:9,20 409:9 413:8 414: 5 438:20 445:21
calculator [1] 411:3
calendar [1] 489:21
California [1] 370:10
call [11] 293:11 312:4,19 365:16 380:13,14 402:13 420:1 426:25 430:3 481:17
called [16] 282:20,22 295:24 299:2 304:1 313:15 326:19,22,23 328: 15 371:24 379:23 385:20 433:23 443:19 484:13
came [7] 309:1 331:12 332:25 411: 24 412:11,25 435:1
Canada [1] 477:19
Canadian [11] 382:15,16,19 407: 12,18 408:5,10,13 409:12 410:6,7
Canadian-originated [4] 406:21 407:19,23 410:1
cannot [3] 431:10 469:10 489:22
capture [3] 313:20 385:14 386:2
captured [2] 346:6 487:18
card [1] 463:13
care [2] 270:9 275:15
career [1] 282:12
carefully [1] 473:23
caret [1] 319:5
carets [1] 451:16
CARP [1] 333:14
carrier [1] 286:14
carriers [4] 286:6,8 363:18 410:25
carry [1] 360:8
cartoon [1] 387:19
case [30] 295:13,18 299:6 304:7 306:14 307:9 310:10 312:24 315: 18 319:25 321:8 342:3 357:12 358:22 382:4 383:15 392:22 393: 17 395:25 396:1,14 420:2 425:20 429:3 434:24 441:20 454:12 464: 7 471:17 477:21
cases [8] 293:25 295:25 298:24 342:19 349:20,21 394:5 419:24
categories [9] 407:14 439:23 440: 10,11,12 441:8,15 442:19 480:7
categorize [2] 341:17,17
category [32] 340:11 375:2,8 377: 22 382:19,20 407:13,13 408:4,14, 16 410:8,9 438:5,12 440:2,9 441: 19 442:6 476:18 478:21,22 479:2, 7,14,20 480:11,16 481:1 484:8,11 486:5
caused [3] 376:18 386:22,24
CBS [1] 443:3
CCG [4] 382:19 407:13 408:14 410: 8

CDC [8] 309:2,9 379:22 380:3,4,5, 6 442:24
Cell [4] 296:9,15 305:1 316:22
cells [9] 312:20 320:1,23 323:8 351:23 352:4,25 358:7,12
certain [15] 313:17 336:19 355:7 364:13 404:6 408:21 409:7,8 436: 16,19 439:15 441:13 469:14,15 485:23
certainly [13] 279:9 324:20 326:14 328:5 355:3 389:4 402:3 404:4,21 419:14 434:1 441:5 453:2
certainty [1] 386:5
CERTIFICATE [1] 493:1
certify [1] 493:3
cetera [9] 286:5 305:2 340:12 352: 22 380:16 452:20 484:19 485:19 488:3
chalkboard [1] 429:18
challenging [1] 479:19
chance [3] 279:11 357:2 362:18
change [12] 400:6 402:1,9,17 403: 2,10,14 404:2,16,19,21,21
changed [9] 272:14 295:15 359: 14 376:18 379:25 400:9 404:15 405:10 415:11
changes [5] 347:24 353:12 355:14 356:17,21
changing [1] 427:15
channel [4] 293:11 303:22 304:9, 17
channels [9] 322:23 323:3,7 357: 16 359:2,4,6,9 462:3
chapter [1] 271:8
characterize [2] 399:2 446:12
characterizes [1] 275:6
chart [3] 402:8 437:12,12
check [1] 413:2
checking [2] 404:4,6
Chicago [1] 307:22
children's [2] 438:2,6
choice [2] 298:8 303:15
choices [1] 458:9
choose [1] 301:17
choosing [1] 483:24
chosen [2] 344:20 346:13
cinema [1] 283:20
circle [1] 424:5
circumstance [1] 450:16
circumstances [5] 333:16 345:15 353:17,18 450:24
citation [4] 332:23 333:2,23 369: 11
cite [1] 369:17
cited [1] 340:5
cities [10] 422:21 423:3,5,8,15 424: 24 425:1,2,6,22
city [4] 422:22 423:10,20 425:8
claim [4] 408:7 414:21 415:15 416: 13
claimant [1] 386:23

Claimants [5] 268:19 269:2 361: 12 382:20 475:22
claimed [1] 457:3
claiming [1] 360:19
claims [8] 376:17 386:14,18 408: 20 414:24 415:23 416:2,16
clarifies [1] 318:9
clarify [2] 314:6 363:12
clean [1] 379:3
clear [7] 271:17 303:21 383:10 386:8 448:24 449:6 480:12
clear-cut [1] 303:14
clearer [1] 346:11
client [2] 284:15 371:15
clients [6] 283:10,18 285:21,23 286:1 371:18
close [4] 392:1 447:24 448:23 490: 2
closed [1] 490:4
closer [2] 298:14 316:17
closing [6] 279:12,18 280:13,20 490:1,6
closings [1] 280:10
co-counsel [1] 369:13
coded [2] 442:25 443:2
coefficient [6] 480:12,19 486:25 487:1,14,22
collected [1] 380:7
collecting [2] 302:24 303:1
collection [3] 284:18 305:25 312: 5
collects [1] 380:6
colloquy [2] 271:16 272:5
column [10] 335:8 354:9,11,14 398:17,18 460:10 464:15 465:2,3
come [12] 279:11 287:3 297:13 315:7 318:20 321:6 324:8 413:13 424:9 470:16 489:19,22
comes [1] 318:7
comfortable [3] 329:23 396:16 451:25
coming [5] 289:16 301:15 343:24 357:6 474:15
comment [2] 335:21 452:14
comments [1] 335:20
commodity [2] 464:9,9
Common [3] 313:24 315:3,5
Communications [1] 286:10
companies [2] 283:20 370:22
company [2] 370:17 371:23
compare [2] 397:20 413:14
compared [4] 351:18 441:25 477: 13 487:2
comparing [1] 351:12
comparison [1] 399:3
comparisons [1] 399:20
compensable [5] 382:2 389:23 390:3 410:22 411:12
compensated [2] 462:11 463:6
competent [1] 274:2
competently [1] 411:3

competing [2] 415:14 416:13
complete [1] 277:13
completely [2] 307:25 326:14
completeness [1] 277:17
compliance [1] 364:13
complied [1] 416:2
component [1] 468:23
comport [1] 399:20
comported [2] 400:10 402:21
compounded [1] 321:9
computer [1] 439:9
concentrated [1] 306:5
Conceptually [2] 308:13 322:20
concerned [1] 465:23
concerning [3] 381:7,17 394:12
concise [1] 280:14
conclude [1] 414:5
concluded [1] 490:12
concluding [1] 414:11
conclusion [6] 343:12 401:7 413:
  17,23 427:19 447:25
conclusions [9] 279:20 280:12
  402:18 403:3,9 415:11 489:2,14
  490:5
conditional [2] 425:18,19
conducted [1] 379:13
confess [1] 411:11
confidence [1] 377:14
confident [1] 275:20
CONFIDENTIAL [1] 491:21
confirm [3] 360:19 424:3,19
confused [3] 346:21 360:13 449:
  10
confusing [1] 346:24
Congress [3] 267:2,15 333:19
connection [2] 274:19 327:1
consequently [1] 272:12
consider [1] 397:7
considerable [2] 303:2 355:25
considerably [2] 331:9 359:3
consideration [2] 363:9 457:5
considered [5] 270:19,25 302:23
  309:3 416:8
consist [1] 289:6
consistent [11] 327:25 328:12,17
  330:9 350:16 353:7,17 354:5 365:
  9 481:7,9
consistently [1] 312:17
consolidated [1] 373:20
constant [1] 484:23
constraints [1] 347:25
construct [2] 380:22 440:18
constructed [1] 385:22
construction [1] 372:11
consult [2] 489:16,18
consulted [3] 468:7,10,12
consulting [6] 370:21,23 371:9,23,
  24 372:1
consumers [1] 286:21
contain [3] 380:4,5 381:3
contained [2] 391:13 392:13

contains [1] 392:14
Conte [1] 268:5
contemplate [3] 481:24 482:5,7
contemporaneous [8] 393:18,19,
  21 395:13 399:8,13 400:17,18
content [2] 329:22 462:8
context [16] 273:25 274:3,6 336:7
  337:1 338:3 351:19 358:13,17
  378:15,16 385:9 406:3 447:12
  448:22 466:13
Continued [1] 269:1
continues [5] 327:12 328:9 335:
  11 354:12 358:20
continuing [1] 357:25
contracts [2] 407:22,25
contradictory [1] 485:5
control [6] 387:22 394:19,22 425:
  20,24 426:2
controlling [1] 439:13
cooperate [2] 294:21 296:2
cooperation [3] 283:2 294:13 295:
  25
copy [1] 332:11
COPYRIGHT [19] 267:1 375:4 381:
  24 407:17 454:22 455:1,25 456:
  21 461:24 462:7,10,12,15 463:5,8,
  17,25,25 482:12
Copyrights [1] 333:8
corner [1] 334:24
Corporation [3] 309:10 379:22
  408:9
correct [125] 288:6,7,10 292:6 300:
  8 309:23 313:14 317:2 321:17
  325:11,12 326:21 330:22 331:6
  334:19,20 337:21,24 338:1,2,7
  341:22 342:7 345:3 353:10,21
  354:25 359:11 360:21 362:14,19,
  25 363:14,15,19,21,22 364:4 365:
  18 366:4,5,11,12,17 377:1 378:1,2
  381:6 383:13 386:16 396:14,20,
  21 397:12,13 401:17,22 402:11,18
  403:5 405:15,16 406:21,22 407:
  19,20 408:2 409:12 410:4 412:21,
  22 413:19,20 414:10 416:23 421:
  19,25 428:5 429:16 432:18,21
  435:17,24 436:7,8,10,11,13 437:
  23 439:24,25 443:12 445:14 454:
  3 455:1,15 462:16 463:17 467:8
  470:18 471:7 472:14 473:20 474:
  19 477:7,24 478:7,8,11,12,14,15,
  23,24 479:11,12,25 480:8,16,17,
  18,21 485:20 488:14 489:3
corrected [2] 413:7 466:8
correction [4] 292:4 376:12,24
  386:13
corrections [2] 291:24 376:10
correctly [5] 285:19 293:12 309:
  24,25 340:14
correlated [1] 453:3
correlation [4] 388:17 430:17 473:
  16 481:5

correlations [1] 387:9
cost [7] 348:14,20,23,25 349:3 363:
  8 402:2
costs [1] 347:24
couldn't [6] 302:15 326:14 331:7
  342:16 364:16 367:16
counsel [17] 271:17,22 280:23
  281:12 332:12 346:23 386:12,18,
  22 401:6 407:6 409:6 414:25 415:
  3,17 488:12 490:8
counsellor [1] 475:20
count [6] 390:18 391:18,19 431:6,
  10,13
counties [4] 300:3 309:2 362:1,2
counting [2] 431:2 481:16
country [8] 280:16 298:1 307:9
  311:22 407:8,11 409:10 477:18
county [2] 299:18 300:4
couple [12] 275:16 296:23 301:20
  329:13 348:7 364:21 365:1 381:
  22 409:1 433:5 476:9 483:1
coupled [1] 403:18
course [8] 274:13 285:9 298:15
  310:18 477:1,8,17 478:19
Court [4] 373:3 378:10 391:25 493:
  10
cover [4] 291:13 349:25 350:1 375:
  16
coverage [1] 324:11
covered [5] 296:24 297:2 410:10
  472:4 483:11
covering [1] 283:24
covers [5] 271:4 293:2,16 362:24
  363:1
create [2] 317:12 385:17
creates [1] 302:7
creating [1] 284:17
credit [1] 386:23
credited [1] 452:16
critical [2] 468:23 475:7
criticisms [1] 327:3
criticized [2] 313:16 435:7
cross [2] 277:12 491:2
cross-examination [6] 275:24
  315:24 325:2 361:4 401:1 475:17
CRR [1] 267:24
CRTC [7] 380:1 382:12,13,14 406:
  18 408:2 410:3
Cruz [1] 370:10
CSO [18] 406:11,11 432:10 444:13
  455:4 457:22 458:4,5,5,8,13 459:
  5,6 463:11,15,21,23,24
CSOs [6] 387:23 410:23 446:16
  454:8 455:13 457:6
CT [1] 410:2
currency [2] 273:11 461:22
current [2] 345:25 394:10
currently [2] 296:8 456:15
custom [39] 282:23,23 284:5,6,9,
  10,10,11,13,14,21,24,25 285:6,6,
  23,24 290:22 292:21,22,24 296:25

298:2 300:10,21,22 301:18 310:7
  312:2,3 319:18,20 320:11 344:18
  346:14 347:9,15 349:18 367:12
customer's [1] 463:19
customers [7] 342:14,14 378:19,
  24 379:1 464:8,8
CW [2] 437:15 441:16

D

D-1 [6] 437:3,4,6,11 478:2 484:7
D-1a [3] 437:4,9 478:3
D-1b [1] 437:4
D-2 [3] 437:3,5,5
D-2a [1] 437:5
D-2b [1] 437:5
D.C [5] 267:3,18 268:16,23 269:8
dart [11] 315:16,20 316:3,4 318:1
  330:21 336:15 337:15,23,25 338:
  19
darts [1] 336:17
data [201] 273:11 284:18,23 289:20
  290:18,18 291:6 292:19,21 298:3
  302:4,8,16,25 305:24 309:10 310:
  22,22,25 311:17,19,19 312:5,10,
  10,18 314:1,14 317:11,22 319:19,
  21 320:1,1,7,25 327:14 336:16,25
  337:5,6,8,11,16 338:24,25 340:13
  341:10 344:13,19 345:12,13 347:
  25 349:6,6,12,14,17,19 350:15
  354:20 356:4,10,22,25 362:24
  363:13,19,20,24 364:1,10,12 365:
  2,6 366:14 367:6,10,12 379:13,18,
  21,22,22,22 380:2,3,4,5,6,11,12
  381:2,3,7,21 382:1,9,12,13,23,24
  383:1,1,6,7,7,8,11,12,17 384:19,
  20 385:19 386:1,25 393:18,20,21
  394:14 395:1,5,6,7,9,11,14,24 396:
  6,10,13,15,17,19,22,24 397:3,7
  398:15,22 399:9,13 400:17,18
  402:2,16 404:7,9 405:3,4,8 406:
  18,19 410:3 418:6,11,15,22 419:1,
  5,5,9,13,21,25 420:22,24 421:3,6,
  9,10 423:14 424:3 427:8,25 428:3,
  4,7 429:20 430:18,23,23 438:23,
  24 439:2 442:16,24 443:16 445:7
  451:16 473:13,19 475:5 476:17
  479:23,25 481:6 485:13 486:7,8,
  11
database [6] 284:22,25 285:2 300:
  20 301:18 361:20
databases [1] 284:17
date [4] 366:10 489:1,4 493:10
dated [2] 366:3 369:19
dating [1] 286:9
DAVID [1] 267:13
day [44] 270:14 280:17,17 303:1
  383:23 387:12,13 400:3 403:17
  420:15 429:23 430:6,16 432:8
  435:3,19 436:6 438:14 439:15
  443:7 446:16,25 447:7 448:2,7,11,
  12,12,16 449:9,15 450:6 452:20

454:16 471:12,15 472:8,9 476:17 483:6,7 484:5 488:3,20
days [3] 303:1,2 383:23
daytime [1] 451:22
deal [1] 489:24
dealing [2] 283:10 450:16
debating [1] 487:9
December [1] 332:11
decent [1] 279:11
decide [3] 294:1 438:20 443:13
decimal [1] 377:16
decision [21] 298:17 332:8,18 333: 20 334:4,21 335:19 343:6,12,20 354:8 355:5,9 357:1 386:21 435:9 459:17 460:2 463:20 465:18 483: 6
decisions [1] 461:11
declare [2] 292:5 376:25
decline [2] 357:19 358:1
declines [1] 358:5
decrease [1] 438:21
decreased [2] 376:21,22
decreases [1] 399:17
define [7] 289:14 303:18 389:17 407:14 418:17,19 438:25
defined [1] 290:1
defining [1] 389:22
definitely [1] 463:1
definition [1] 440:13
definitions [3] 299:16 407:15 439: 22
degree [3] 282:9 353:11 458:5
degrees [4] 351:5 352:1,25 357: 22
delay [1] 280:10
deliver [1] 270:16
deliverables [1] 351:9
Deloitte [4] 371:5,7,11,21
demographic [1] 293:24
demographics [2] 303:25 304:15
demonstrably [1] 391:21
demonstrate [2] 393:20 417:4
demonstrative [4] 398:1,7,9,11
denied [2] 272:14 275:12
deny [1] 270:23
depending [3] 353:20,22 478:16
depends [2] 338:11 418:17
describe [11] 295:10 372:3 373:2 387:2 389:1,11 390:13 391:12 392:12 398:8,25
described [10] 292:20,22 387:1 392:15 405:9 437:7 454:17 465: 12 468:21 482:14
description [2] 314:21 477:4
design [4] 283:13,15 285:13 288: 17
designate [1] 277:11
designated [5] 276:11 277:15 289: 24 299:18 329:11
designations [1] 312:25
designing [1] 285:16

detail [9] 301:5 374:1 378:18 389: 2,4 405:24 432:13 433:13,23
detailed [3] 381:17,18 458:22
details [3] 301:4 326:23 355:19
determinant [2] 285:15 301:23
determination [2] 313:22 317:16
determine [7] 273:23 274:4 286: 11 314:13 324:14 382:1 432:2
determined [3] 274:18 313:10 341:25
devaluation [2] 464:19 465:4
develop [1] 482:17
developing [1] 285:1
development [1] 283:14
device [2] 283:19 300:25
Devotional [11] 268:19 269:2 273: 21 361:12 475:22 479:7,9,14,20 480:15 481:1
dialing [1] 296:14
diaries [11] 290:19 293:18,19,21 295:12 297:2,22,24 303:23 355: 25 396:4
diary [34] 292:24,25 293:1,7,9 294: 2,16 296:1,24 297:17,19 298:3,14, 21 299:22 302:4,16 303:12 304: 14 308:13 319:10,17,19 383:1,11 385:19 395:24 398:15 418:6,11, 15,22 428:4,7
diary-based [1] 349:22
dichotomy [1] 486:5
differ [5] 273:4 304:4 330:3 347:17 353:19
difference [10] 305:13 390:2 391: 2 392:4 393:25 394:4 395:1,4,19 428:24
differences [6] 391:8 394:19,22 406:6 444:5 446:7
different [43] 272:9 284:12 285:4 302:7 307:2,3,4 315:12 329:14 344:5 345:11 356:25 363:4 386: 25 403:15 405:3 414:15 416:20 419:13 420:4 437:14 439:14,23 440:15,24 441:2,2,4 446:10 447: 14 449:12,22,23 450:2,3 458:10 465:14 471:18 478:20,23 479:3 481:6 484:8
differentiation [1] 284:16
differently [2] 319:18 403:20
differs [1] 346:18
difficult [7] 289:9 310:23 311:1 351:1 355:24 367:8,19
difficulties [1] 305:1
difficulty [2] 347:3 448:10
digits [1] 324:2
DIMA [1] 268:13
dire [4] 271:21 287:22,24 491:5
direct [27] 270:21 271:11 272:17 275:11,22 276:16 277:11 281:20 290:13 324:17 326:6 352:12 358: 3,4,17 365:3 366:2 370:1 374:4 379:3 384:5 401:8 405:10 453:20

459:19 476:5 491:2
directed [4] 332:4 355:8 393:15 484:9
direction [2] 298:18 301:22
directive [1] 400:14
directly [1] 376:8
directors [1] 381:17
DirecTV [1] 286:12
disadvantage [1] 400:7
disagree [10] 294:10 336:4,12 343: 19 452:4 461:14,15,20 465:9 474: 4
disbursed [1] 306:4
discarded [1] 475:9
discovery [2] 415:24 442:17
discuss [3] 283:11 384:5 460:3
discussed [8] 349:12,13 381:9 397:24 404:7 414:14 445:11 452: 4
discussing [8] 285:3 293:23 297: 23 320:5 343:4 414:19 452:16 476:21
discussion [1] 407:5
dish [1] 283:20
disproved [1] 424:10
dispute [4] 394:12,16,23 444:3
disputes [2] 370:25 371:20
disservice [1] 312:19
distant [119] 299:19,23,25 309:7 321:25 342:13,22 376:16 379:14 380:25 382:10 383:5,11,20 384:6, 7 385:6,10,15,25 387:10,13,16,21 388:5,11,18 393:19 394:7,14,19 395:6,10,14,21 396:6 397:18 398: 21 399:6,9,15 400:1 403:17,23 406:7 418:11,15 419:3,5 420:8,13, 16 421:25 422:5 427:5,10,13 428: 4,19,22 429:3,4 430:14 431:22 432:2,6,11 434:21 435:15,18,23 436:3 438:7,17 439:17,19,20 441: 24 444:5,10,14,15,19 445:2 446:7, 15,17 450:1,3,6,11,18 452:6,9,10, 11 457:16,18 462:20 469:21 470: 3,5,14 471:3,21,24 472:18 473:14, 16 479:24 480:1,3 481:5 485:10 486:9 487:5,6,12,19
distantly [20] 272:3 321:20 323:13 351:12,17 352:6 380:9,13,24 381: 10 384:15,24 406:4 410:23 411: 13 446:24 447:6 448:1 457:19 487:17
distill [1] 280:11
distinction [6] 326:25 349:23 440: 20,23 443:14 485:8
distinguish [1] 273:5
distribution [16] 287:8 310:4 324: 11 332:8 338:14 340:17 350:24 352:1,7 353:12,16 357:15 360:3 362:7 393:9 459:23
distributions [2] 360:14 362:10
divided [6] 309:4 311:22 322:13,

15 411:23 412:10
divvy [1] 457:2
docket [2] 393:3,24
document [7] 277:24 326:8 327:8 332:21 334:24 375:22 464:14
documents [1] 325:16
doing [18] 281:1 284:18 305:5 306: 21 307:2 316:14 319:8 321:9 344: 6 346:13 362:11 371:16 407:4 424:1 425:18 429:19 451:25 483: 18
dollar [1] 320:22
domestically [1] 282:17
DOMINIQUE [1] 268:12
done [49] 284:14 286:7 289:5 290: 20,24 291:3 296:3 297:11 298:24 299:2 300:18 304:21 308:13,21 309:20 311:4,6,10 312:19 319:24 344:18,21,23 345:6,7 346:11 347: 10,15,23 348:4,16,16,18 349:17 351:3 355:14 356:3 361:18,18,22 385:16 395:12 411:2 440:19 460: 6 464:21 465:6,7 483:9
doors [1] 486:15
double-check [3] 427:20 442:6, 14
double-checking [1] 488:16
double-counting [1] 445:19
doubled [1] 358:12
down [16] 270:5 279:11 305:6 335: 9 358:19,21 362:1,3,5 409:1 438: 9,10 460:20,25 461:1 488:11
dramatic [1] 485:18
dramatically [1] 400:10
draw [1] 380:23
drink [1] 418:7
drive [1] 359:23
driving [1] 302:19
dropping [1] 444:23
DSFN [1] 355:22
Ducey [2] 467:24,25
due [1] 425:11
duly [2] 281:16 369:8
dummy [1] 444:7
duration [1] 381:13
During [6] 298:12 384:2 405:10 444:12 476:16 484:4

E

each [36] 293:8 299:11,18,22 301: 1 308:18,25 309:3,4,25 311:20,24 322:7 362:9 363:13 373:22 380: 12 381:9 383:9 384:8 388:6 389: 15 390:7 391:23 406:4 414:17,19 415:14 416:12 422:22 423:19 424: 24 425:8 429:22 440:10 476:17
earlier [10] 292:2,18 355:1 376:1 377:19 392:15 437:7 445:11 470: 6 475:25
early [1] 298:13
easier [2] 461:2,4

easiest [1] 304:22
easy [1] 417:5
echoing [1] 275:1
econometrician [1] 427:8
econometrics [2] 372:7 374:9
economic [5] 371:1,9,25 372:20, 21
economics [5] 370:9,11 371:17 372:5 374:9
economist [2] 455:24 461:16
economists [2] 441:22 487:25
educational [3] 282:8 370:8 380: 15
effect [2] 452:17,18
effectively [1] 321:12
efficiency's [1] 319:24
efficient [1] 307:1
effort [6] 294:20 295:24 311:9 348: 24 356:3 405:14
efforts [1] 356:2
Egan [3] 458:20 459:6 466:4
either [13] 313:18 316:4,7,25 337: 14 344:3 371:18 376:7 389:15 393:10,17 394:21 458:25
elaborate [1] 415:21
elements [1] 482:10
eligible [1] 305:19
eliminate [1] 299:5
eliminated [4] 299:8 302:17 308: 17,20
emblematic [1] 272:25
emergency [1] 270:7
emphasis [2] 287:19 290:7
emphasize [1] 272:20
employ [1] 384:12
employed [1] 394:5
employs [1] 295:11
end [14] 270:14 307:2 316:15 317: 13 322:17 338:10 343:7 354:14 413:13 437:12 446:18 454:16 461: 6 462:11
ended [2] 301:21 310:10
endorsement [1] 274:25
endorses [1] 274:23
ends [4] 309:21 319:1 335:15 461: 7
engaged [2] 466:17 468:2
enough [18] 338:22 346:25 358:25 419:25 420:2,10 428:17 431:23 432:7 448:19 449:18 451:14 470: 22,24 471:1,2,9 483:19
ensures [1] 362:6
entered [1] 393:2
entire [6] 311:22 326:9 376:7 384: 25 397:10 464:22
entitled [2] 326:4 413:18
envision [2] 274:8 455:6
episode [3] 381:15 389:18,20
episodic [1] 389:18
equal [13] 322:6 353:25 354:2 406: 7 438:8,14 441:22 444:20 447:24

480:14 487:16,24 488:2
equals [1] 428:14
equivalent [1] 304:8
Erdem [2] 480:25 481:3
Erdem's [1] 274:25
errantly [1] 441:11
error [4] 331:4,5,8,11
errors [1] 330:12
especially [1] 279:4
ESQ [9] 268:3,10,11,12,13,20 269: 3,4,5
essentially [8] 348:11 377:20 405: 6 406:19 413:22 414:10 470:23 479:17
establish [3] 273:24 408:21 473: 14
established [1] 388:16
estimate [16] 312:21 319:11 330: 10 341:19 349:2 351:1 384:3,6 394:6 397:18 399:7,12 420:15 423:19 443:16 451:19
estimated [6] 313:11 388:5,9 397: 17 399:25 403:12
estimates [11] 279:23 293:25 388: 13,17 397:21,22 398:12 399:3,4 419:16 422:1
et [9] 286:5 305:2 340:11 352:22 380:15 452:20 484:19 485:18 488: 3
even [33] 284:13 294:18 314:18 317:22 320:18 339:23 340:6 348: 22,24 350:15,17 355:20 356:1,15 381:16 391:1 392:4,22 397:2,6 399:24 403:13 421:22 423:2,16 425:10 427:11 430:18 451:25 455: 8 474:21 475:2 485:17
event [1] 433:8
events [1] 278:10
everybody [2] 279:22 362:19
Everyone [2] 369:5 465:7
everything [2] 281:2 283:9
evidence [14] 276:8 278:4,11,21 292:15 327:20 329:16 331:17,21 377:10 393:13,20 490:8,9
evidenced [1] 457:15
evolution [1] 310:12
evolutionary [1] 355:10
evolved [1] 357:21
exact [3] 297:9 320:18 350:10
exactly [5] 289:9 315:16 344:2 355:14 469:16
examination [12] 271:22 277:12 279:23 281:20 287:24 290:13 327: 13 364:23 367:2 370:1 481:19 483:2
examine [1] 340:19
examined [2] 281:16 369:8
examining [2] 281:11 284:23
example [29] 272:23,25 315:10,13 318:1 320:25 323:20 334:10 336: 15 357:20 358:11 362:16 389:21

390:17,24 391:3 399:5 403:24 422:11 423:22 425:10,15 426:2, 10 438:1 449:22 478:1,6 487:10
examples [1] 351:3
except [1] 277:6
exception [1] 405:9
excise [1] 410:3
excluded [2] 382:20 480:16
excluding [2] 437:10 478:7
excuse [15] 288:2 309:12 335:3 345:17 351:11 377:12 406:23 410: 2 412:7,18 418:6 419:9 449:9 458: 2 484:18
excused [2] 367:24 488:10
Exhibit [32] 271:12 275:22 276:2,5, 7 277:20 278:3,7,16 291:17,19 292:9,14 325:25 326:3 327:9,16 365:4 366:3 375:19 376:6,8,11,25 377:5,5,9 389:3,8 390:9 484:7 492:2
Exhibits [2] 276:10 278:20
existing [3] 284:22,25 462:4
expect [27] 321:15 322:8,15 323:5 334:15 341:15 344:2 350:20 351: 4,22 352:2,3 353:16 354:1 357:11 358:7 397:1,2 400:6 401:25 402: 16,25 403:2,5 430:19 469:17 470: 3
expectation [6] 328:1,13 334:17 359:14 403:22 425:19
expectations [5] 334:9 399:21 400:11 402:15,21
expected [7] 331:6,8 344:1,11 353:4 359:19 404:16
expensive [2] 296:18 363:10
experience [9] 285:4,5,9 287:17 334:16,18 351:16 372:25 374:2
expert [22] 271:18,24 272:7 274: 24 287:14,18 288:8,13,15 289:11, 25 290:6 315:6 356:9,12 360:19, 20 364:5 371:1 373:9,23 374:8
expertise [11] 271:16 272:1,20,20 273:19 274:16 275:4,5,6 288:4 372:9
experts [1] 356:9
explain [11] 284:8 285:22 298:19 326:23 361:14 405:23 432:12 437: 25 441:17 443:24 459:3
explained [2] 335:12 356:20
explaining [1] 304:23
explanation [4] 354:21 439:7 461: 19 486:4
exposed [6] 433:16 435:16,23 436: 3 445:22,24
express [1] 473:7
expresses [1] 271:15
expressing [1] 343:22
extensively [1] 367:8
extent [10] 274:7,22 279:20 285:10, 14 286:19 323:15 334:5 452:17, 19

extra [1] 456:8
extraneous [1] 416:3
extraordinary [1] 343:13

F

face [1] 333:12
fact [42] 279:19 286:8 291:14 294: 6 295:2 302:4,9,13 303:2,12,13 310:19,23 312:22 314:10 317:5 319:12 321:4 336:19 337:14 340: 23 341:3 344:12 353:4,13 354:2 357:5,13,24 358:23 364:2,10 390: 21,22 402:20 403:3 408:11 413: 17 417:6,6 444:21 455:14
factor [11] 273:4 303:4 331:4,5 432:14 433:12 434:21 435:3,4,5, 25
factored [1] 285:10
factoring [1] 436:6
factors [6] 298:5 400:1 403:17 433:14 439:14 452:15
factual [1] 455:13
failed [1] 472:20
fair [15] 289:15 314:7 318:22 338: 22 346:25 356:24 378:11 411:9 428:17 431:23 432:7 448:19 449: 18 471:1 472:2
fairly [6] 294:25 298:24 402:11 416:23 463:5 477:17
fall [5] 285:5 309:24,24 478:20 479: 9
fallout [2] 294:11,13
falls [2] 321:14 360:5
familiar [11] 289:11 326:11 334:15 356:8 391:15 393:1 401:20 444: 21 465:16,17 466:13
family [2] 270:7 279:6
fancier [1] 425:21
FAPR [1] 267:24
far [10] 303:3 335:8 345:1 353:15 419:22,22 452:7 460:10 461:4 465:3
fashion [5] 302:23 305:8 320:5 361:18 432:4
fault [1] 323:23
FCC [3] 363:23 364:3,14
FEDER [13] 267:12 270:6 275:14 296:3 309:12 345:17,24 346:5,8 377:12,17 481:17 490:2
Feder's [1] 281:2
Federal [4] 332:10 333:2 369:16 459:18
fee [3] 456:8 457:6,23
feel [1] 426:12
feels [1] 329:23
fees [32] 287:2 380:17 387:23 394: 20 400:4 405:20,25 406:5,9 432: 10 443:23 444:8,12,15,17 445:5,8, 12,17,23 446:4,4,6,16 449:9 455: 14 456:20 457:1 471:16,25 472:4, 6

felt [1] 488:25

few [10] 316:11 361:2 372:10,18 384:23 409:24 451:9 476:3,21 485:15

fewer [3] 330:22 409:18 419:23

field [5] 271:18 287:18,19 290:6 374:8

figure [16] 283:11 352:15 406:20 411:22,22,24 412:9,11 427:18 438:2,3 470:16,17 471:6 484:17 485:2

figures [4] 414:18 416:12 441:17 443:5

filed [1] 417:13

filing [1] 376:17

fill [2] 320:2 473:18

films [1] 315:8

final [1] 393:9

finally [4] 274:21 382:8 387:18,22

finance [1] 451:22

Financial [1] 371:5

find [16] 275:2 280:13 298:11 317:7 324:3 338:9 340:23 378:5 396:9 422:23 424:25 425:4,8 453:22 473:15 484:7

finding [1] 317:13

findings [7] 279:19 280:12 375:12 481:8 489:2,13 490:4

finish [3] 270:8 279:4,25

firm [1] 282:15

first [37] 281:16 290:19 291:15 292:23 297:3 298:5 301:22 306:14 325:11,15 327:4 328:21 333:11 364:25 369:8 383:3 394:1 395:17,17,23 401:10,16 402:10 417:14,16,19 418:7 432:15,16,19 433:3 438:1 440:3 458:18 465:1 476:8 487:14

fits [1] 489:20

five [8] 370:18 422:21 423:6,6 424:24 474:25 475:4,5

flaw [1] 336:21

flawed [1] 401:11

fleeting [1] 385:14

Floor [1] 268:15

flow [1] 462:13

focus [1] 476:11

focused [2] 342:5 484:9

focusing [7] 327:10 335:8 359:21 410:18 412:8 455:19,22

follow [3] 279:19 308:5 482:3

followed [3] 271:21 400:14 416:16

following [3] 297:18 327:12 414:24

follows [2] 281:17 369:9

foolish [1] 337:13

footnote [10] 328:20,20,22 329:10,20 331:14 394:11 444:2 476:7 483:5

force [1] 302:19

forced [1] 321:15

foregoing [1] 493:3

forget [3] 283:23,24 296:11

forgo [1] 280:25

forth [8] 271:10 280:21 334:25 381:5,18 412:19 430:7 477:20

found [5] 393:8 422:22 424:2 479:22 481:3

foundation [2] 415:19 432:15

foundational [1] 354:22

founded [1] 370:17

four [3] 298:15 379:21 423:6

fourth [1] 398:18

Fox [5] 442:19,20,20,22,24

fractionalization [1] 357:17

frame [1] 348:10

frames [1] 348:18

frankly [3] 302:18 317:25 363:8

free [1] 455:11

frequently [2] 287:12 367:7

front [5] 291:13 327:8 375:15 398:8 433:20

full [6] 277:18 283:1 297:24 335:14 354:10 465:1

Fuller [1] 466:9

fully [3] 351:4 357:11 358:6

fun [1] 422:14

function [3] 323:11 324:10 463:12

fund [2] 374:20,21

fundamental [1] 336:21

fundamentally [4] 380:22 381:23 405:3 420:4

FUNDS [5] 267:6,9 332:9 393:10 459:24

funny [1] 343:21

further [13] 270:24 307:6 321:9 324:16 327:13 360:23 364:17 366:24 367:22 400:20 475:15 481:10 486:18

future [2] 354:12,20

G

G-r-a-y [1] 370:6

gain [1] 295:24

GALAZ [2] 269:12 433:24

game [1] 476:18

gather [2] 284:19 484:15

Gauss [1] 439:10

gave [2] 352:15 423:23

gee [1] 389:5

geez [1] 283:23

general [22] 272:19,20 273:17,19,25 274:15,16 302:5 329:22 334:18 341:23 350:19,20 352:13 354:18 393:5 398:24 405:24 406:10 409:11 461:19 466:23

generally [11] 273:13,13 293:22 295:10 302:20 342:6,11 367:5 398:9 432:23 445:12

generate [3] 431:22 471:16,17

generated [3] 299:21 345:16 380:17

generating [1] 301:14

gentleman [1] 458:19

geo-stratified [3] 304:21 361:15 362:15

geographic [2] 299:16 363:11

geographical [2] 362:16,17

geographically [1] 362:6

geographies [5] 302:10 305:6 361:23,24 363:7

gets [5] 313:17 321:9 323:4 392:22 426:11

getting [5] 286:11 316:15 357:2 362:10 427:23

give [18] 270:12 274:14 275:8 278:13 293:18 327:23 348:22 360:20 369:16 395:18 422:9 428:1 439:7 447:24 461:19 465:23 475:24 484:1

given [30] 278:10 311:5,5 313:20 316:24 317:9 320:25 322:22 323:2 339:3 341:13,14 342:23 350:24 351:21 369:12 404:10 408:23 422:3 458:19 466:25 467:12 470:1 472:7 487:4,4,5,6,7,8

gives [3] 461:22 462:17 473:17

glad [2] 306:13 489:5

glance [1] 326:10

globally [1] 282:17

glutton [1] 472:22

goal [4] 453:22 463:2,3 474:8

goals [2] 474:7,8

Google [1] 424:19

got [18] 303:10 306:22 307:10 319:10 322:3 337:7,21 340:24 355:22 386:23 428:11,12 436:23 449:10 461:8 465:5 483:13 486:11

gotten [1] 334:15

government [2] 363:22 370:22

Gracenote [8] 379:23,25 381:5,20 382:1 442:23 476:17 478:16

Gracenote/Tribune [1] 382:9

gratuitous [1] 275:3

Gray [29] 280:3,8 289:12,17,21,21 320:2 365:23 369:4,7 370:3,6 374:8,12,16 375:24 377:12,19 393:1 398:7 401:3 415:25 416:8 426:15 453:18 475:19 481:22 488:8 491:11

great [1] 285:14

greater [11] 301:5 303:11 352:1 359:9 384:16 386:4,5 390:21 391:2 392:4 463:8

greatest [1] 385:23

GREGORY [2] 268:10 467:16

grounds [1] 271:25

Group [20] 268:2 282:21,22 283:6,8 288:3 299:10 325:6,15 326:5 327:4 341:8 350:2 370:14,16,20 371:4,24 382:20 401:5

groups [6] 283:25 284:3 285:25 362:1,2 440:15

growth [1] 357:14

guess [5] 279:11 361:9 402:3 437:22 469:5

guest's [1] 293:15

guidance [1] 371:17

guy [1] 427:8

H

half [1] 298:1

Hamilton [1] 468:15

Hamilton's [2] 468:19 469:4

hand [2] 273:20 324:3

hand-dialed [1] 296:16

handful [2] 384:4 422:15

handle [1] 275:18

handled [1] 282:23

happen [6] 316:4 320:17 332:23 357:14 403:21 487:15

happened [3] 426:18 488:20,25

happening [5] 306:15 309:21 310:10 344:3 347:12

happens [6] 322:19 328:20 335:1 344:6 420:7 441:24

hard [5] 315:11 338:6 357:3,7 367:17

harder [1] 337:25

hate [1] 295:1

head [7] 322:4 332:25 351:2 365:14 411:11 427:2 487:9

hear [4] 409:17 446:20 488:17 489:6

heard [3] 387:7 466:1,2

hearing [14] 306:2 376:18 379:16 382:3 385:19 386:19 397:5 408:20,21 448:18,18 462:12 466:15 490:11

hearings [1] 341:25

hearsay [1] 469:2

help [3] 289:7 443:18 450:23

helped [1] 443:21

helpful [1] 396:10

helps [1] 447:15

herewith [1] 327:15

heterogeneous [2] 440:14,15

high [14] 335:12 343:13 353:9 378:19 379:8,12 392:19,24 418:20 419:2 423:18 451:8 470:1,8

higher [18] 273:10 351:15 384:17 391:21 392:22 427:11 436:15,19 438:17 441:12 444:13,15,15,17,19 449:25 450:1 463:9

highly [1] 487:17

highly-rated [1] 352:23

highs [1] 444:9

hire [1] 426:1

historically [1] 378:9

hit [9] 316:4,7,9 318:1,3 322:16 330:21 337:14,25

hits [2] 317:2 337:2

hitting [1] 471:14

Hold [2] 282:4,18

holder [6] 456:1,21 461:24 462:7, 10,16
holders [2] 462:12 463:5
holds [1] 480:6
HOLMES [1] 268:11
home [1] 301:2
homes [10] 299:11,13 301:8 303:8 305:16 307:10 308:2,23 310:3 322:7
homogeneous [4] 273:3 440:3 441:1,7
homogenous [1] 273:2
honest [2] 296:12 297:9
Honor [46] 275:17 276:22,24 277:3, 5,10 278:5,22 279:8,17 280:19 281:13,19 289:23 290:4 324:18 325:1 329:5 332:6,24 333:23 346: 20 360:24 374:7 377:4 398:4 400: 21,25 403:25 409:16 410:16 415: 22 416:24 448:5 453:6,16 459:13 463:6 468:24 472:20 473:2 475: 16 481:15 482:24 483:11 488:23
HONORABLE [3] 267:11,12,13
Honors [2] 287:16 475:16
hope [2] 318:9 449:5
Hopefully [2] 315:14 462:11
hoping [1] 270:8
·**host** [1] 400:1
hot [2] 464:8,9
hours [4] 303:1 335:13,21 383:23
household [12] 293:7,8,14,25 295: 19,21 296:4 304:6,9 305:9,14 322: 14
households [24] 294:2,15 295:12 299:6,9,23,23,25,25 301:3 304:18, 24 306:19 308:17,20 309:8,8,14, 15 310:4 322:2 331:4 362:4 430: 19
housekeeping [5] 275:15,17 278: 6,23 279:2
housing [1] 305:18
However [2] 356:24 360:7
Hughes [1] 286:10
Human [1] 372:21
humbled [1] 426:12
hundred [2] 316:13 322:23
hundreds [1] 439:18
Huron [1] 371:24
hypothetical [12] 274:6,8 339:11 340:3 358:10 422:9 455:10 462: 23 463:2 472:21 482:7,10

I

i.e [3] 411:25 425:9 448:14
idea [5] 338:3 362:5 395:18 405:24 424:24
identical [2] 443:7,8
identified [4] 299:4 300:2 313:2 394:12
identifies [1] 304:16
identify [10] 293:13 297:15 304:24 305:8 313:8 314:8 375:21 381:24 386:9 408:3
identifying [3] 295:17 301:7 304:9
II [6] 267:22 276:14 346:22 347:1, 10 373:16
Illinois [1] 373:5
illustrated [1] 327:14
imagine [3] 367:17 422:16,20
impact [8] 323:9 330:17 396:23 397:2,3 399:11 436:19,24
impacted [1] 376:19
impacting [1] 403:19
implicit [1] 457:8
implicitly [1] 393:19
implied [1] 320:3
impolite [2] 431:9 475:24
importance [2] 321:5 359:16
important [17] 297:17 298:7 301: 11 317:21 326:25 342:24 358:9 371:15 387:11 435:20 457:23 458: 4,7,8 462:15,23 463:1
impossible [4] 285:12 311:2,5 396:22
imprecise [1] 335:23
impression [1] 306:9
improve [2] 356:4 443:19
impute [1] 432:6
inaccurate [2] 316:25 331:14
inappropriate [2] 344:13,14
incentives [1] 294:24
incidence [13] 351:15 418:5,14,21 419:2 420:21 421:8,13 422:7 431: 15 450:17 451:8 470:1
incidences [2] 427:11 452:9
incident [1] 328:14
incidents [5] 328:14 330:21 331: 23 451:9,14
include [5] 277:20 317:10 367:13 392:21 398:21
included [7] 276:15 277:15 299:7 305:14 308:18 362:17,18
includes [6] 289:17 294:21 352:20 437:4,5 478:22
including [1] 271:19
inclusive [6] 276:11,20,22 278:1,8, 17
incomplete [1] 337:16
inconsistent [1] 328:16
incorporating [1] 310:13
incorrect [3] 428:15,16,17
incorrectly [1] 421:2
increase [2] 386:24 438:20
increased [4] 357:10 358:24 396: 7 445:8
increases [3] 359:1 399:7,15
indeed [3] 315:5 424:15 478:18
Independence [1] 267:17
Independent [14] 268:2 288:3 303:24 307:23 325:6,14 326:5 327:3 380:15 401:4 437:15 441: 14,16 442:25

independently [1] 407:7
indeterminate [1] 314:23
indicate [3] 293:13 304:11 312:24
indicated [2] 275:23 394:17
indicating [6] 293:2,9 313:1 345: 21 459:20 460:24
indication [2] 353:3 452:2
indicia [5] 436:9,13 446:10,13 452: 19
indirect [1] 391:7
individual [27] 293:4,16 299:12 305:8 313:7 317:23 318:11 322: 22 323:7 330:10 337:12,12 338:8, 17,18 340:6 342:18,20,24,25 343: 2 358:6 359:6 360:5,10,11 407:24
individuals [1] 358:14
industries [2] 273:12 372:8
industry [4] 302:21 334:16 372:12, 12
inference [1] 317:23
inferior [1] 435:11
inform [1] 314:2
informally [1] 314:20
information [50] 284:19 285:2 289:16 304:14 314:12 327:24 336: 22 357:22 380:4,7,8,14,19,20 381: 2,11,16,17,19 382:14 389:12 390: 13 391:13 392:13 393:8 394:18 396:3 403:1 408:2 420:3,10 427:9, 10 428:21 429:2,22 432:3 438:22 443:15,18 450:23 451:15 452:11 470:14,14,22,24 471:2,9 484:2
informed [2] 468:19 488:18
informs [1] 279:21
initial [10] 271:1 325:20 333:13 394:24 397:21 398:12,16,17 401: 9 402:6
initially [4] 271:3 283:10 294:15 361:25
initiated [1] 326:17
inquire [1] 407:7
inquiry [1] 274:12
insights [1] 371:18
insist [1] 335:11
insofar [2] 378:22 402:5
install [1] 304:19
instance [10] 322:10 334:8 339:1 350:14 353:7 408:8 443:11 470:7 483:8 486:25
instances [15] 318:2 320:10 338: 10 356:5 385:15 396:3 419:15,23 423:5 429:5 430:2,3 452:1 470:21 473:18
instant [1] 383:17
instead [6] 394:20 416:14 444:7 449:5 456:18 472:1
instruct [1] 409:6
instructed [5] 407:1 408:17 409: 25 414:25 415:3
instructional [2] 387:20 451:7
insufficient [1] 473:19

integral [2] 463:19 468:23
interest [3] 363:25 364:8 458:14
interested [6] 287:4 378:23,24 385:10 422:17 462:1
interests [2] 271:19,20
internal [1] 344:24
Internet [3] 283:22,23 286:4
interpret [1] 480:19
interpreted [1] 285:19
intersection [1] 372:6
intervals [3] 377:14 483:7,24
intractable [1] 424:16
introduced [2] 302:12 329:15
introduction [2] 297:11 359:22
inundated [1] 461:11
involved [11] 283:13 284:6 287:9 288:16 370:24 371:19 454:20,21, 22 466:16 468:1
IP [1] 432:25
IPG [44] 271:23 273:21 329:17 333: 19 375:9 379:5 381:25 386:10,20, 23 388:20,24 389:15,24 390:4,5, 22 391:1,5,9,22 392:2,7 408:7 410:24 411:5,6,22,23 412:11 414: 8,21 415:15 416:14 417:13,18 432:18 433:8,15 434:20 435:1 436:9 454:13 457:2
IPG's [8] 270:19 271:13,22 410:22 412:1,13,24 452:19
IPG-Claimed [1] 390:12
isn't [6] 277:22 342:3 358:21 359: 21 430:22 440:1
isolation [1] 339:18
issue [22] 272:16 273:19 274:1 295:3 312:14 313:9 325:16 334: 14 341:6 379:15 382:2,18 405:12 415:23 418:10 435:17 445:18 453: 23 454:5 458:6 460:3 477:21
issued [4] 279:18 311:24 354:25 366:8
issues [8] 272:22 283:11 302:8 310:21 404:6,9 408:18 460:3
itself [5] 297:16 352:5 357:15 411: 20 435:11

J

James [2] 466:11,14
jammed [1] 489:7
Jane [1] 276:12
January [1] 459:25
Jeff [1] 320:2
Jeffrey [5] 280:7 369:7 370:6 375: 23 491:11
JESSE [1] 267:12
JESSICA [2] 269:5 361:11
jog [1] 465:24
John [2] 270:22 466:9
joint [1] 338:23
Jonda [1] 275:23
Journal [1] 372:21
journals [2] 372:16,19

maintain [1] 463:20
majority [2] 320:24 479:9
makers [1] 283:20
man [1] 270:4
many [27] 297:20 303:16 316:19,
21 323:7,7,7 342:22 350:8 359:6
360:7 367:17 371:12,12 385:13
386:2 390:15 407:4 410:21,24
430:3,19 445:23 461:15 474:22
487:12,19
map [1] 305:9
marked [7] 276:7 278:4 292:14
325:25 326:3 334:23 377:9
MARKED/RECEIVED [1] 492:2
market [51] 273:20,24 274:5 286:
21 287:19 290:6 291:3 306:24
307:14 309:13,20 349:20 351:23,
25 352:5 367:11 378:7,11,14 379:
5 438:15 453:25 454:1,4,11 455:
11,16,18,18,23 456:3,11,13 462:6,
19,21,23,24,25 463:2,4 477:2 481:
22,25 482:7,10,13,18 487:15,19
488:2
marketing [2] 282:16 284:3
marketplace [5] 274:7,9 357:21
481:23 482:5
markets [24] 274:11 293:24 297:
20,22 302:1,2,3,12 303:14 307:7
311:21,23,25 312:1 362:25 363:2,
14 476:13,24 477:9,11,12,22 479:
16
Marsha [7] 276:13 277:7 299:2,17
344:20 346:13 385:21
Martin [2] 275:23,25
massively [1] 415:11
material [6] 339:7 411:5,5,6 412:
11 469:25
math [6] 319:7 321:7 322:5,19 411:
2 422:24
mathematical [5] 387:9 388:2,4
397:16 400:5
matter [15] 272:8 278:6 305:2 356:
1 361:13 372:3,4 373:24 395:23
401:5 409:11 432:24 455:13 464:
4 489:14
matters [3] 275:17 278:23 341:3
MATTHEW [2] 269:3 475:21
maximizers [1] 378:23
mean [43] 289:19 294:10,23 309:9,
18 311:12 312:15 318:9,17 321:
13,19 323:19 343:8,14 345:12,20,
20 357:3 359:2 360:6 405:24 406:
2 419:5 422:3 423:9 425:16 426:
15 430:9 432:19 433:19 436:23
438:11 444:18 451:3 458:5 465:
13 469:18 485:15,21 487:2,22
488:1,4
meaningful [1] 483:20
meaningless [1] 358:17
means [9] 295:8 343:16 405:25
428:7 444:15 447:11 469:17 487:

3,24
meant [6] 297:21 339:12 345:22
346:25 348:11 406:1
measure [18] 273:15 306:23 378:
12,14 379:3 380:24 389:13 391:7
399:15 406:6,13 432:2 445:17
449:24 451:10 457:19 458:12 472:
7
measured [12] 297:20 302:2 317:
6 343:24 422:5 435:2,8,10 458:15
460:12 462:5 487:18
measurement [14] 286:15 287:20
290:8 314:19 320:16,20 344:7
356:4 363:20,24 469:21,24 471:3
472:17
measurements [2] 313:6 314:6
measures [5] 303:22 343:17 383:
19 404:24 413:22
measuring [1] 385:10
mechanism [1] 474:15
media [7] 271:19 272:21 282:16,
22,24 283:18 286:4
media-related [1] 284:5
meets [1] 334:8
memory [1] 465:25
mention [1] 372:18
mentioned [13] 284:9 285:21 300:
2,11 310:6 319:16 373:11 382:12,
22 384:10 386:7,7 436:6
mentions [1] 329:13
met [2] 281:3 402:15
metaphor [1] 426:16
Meter [46] 297:12,15,21 298:11
300:15,25,25 301:24 302:3,14,22,
23 303:6,17,17,19 304:1,2,5,6,9,
10 305:24 306:16 307:25 308:1,
10 310:7 320:19 334:11 349:6,14,
19 352:19 362:16 363:1 383:7
395:7 419:1,4,5,8,9 420:22,24
421:10
metered [14] 290:23 297:14 298:
13 305:20 349:17 476:13,24 477:
2,3,9,10,13,14,22
meters [16] 301:6 303:20 304:4,19
306:1,4,6,19,22,25 307:11,21 310:
14 349:21 356:1 477:15
method [4] 297:12 302:24 324:13
362:12
methodological [1] 393:25
methodologies [5] 283:12 302:6
355:12 359:15 433:6
methodology [28] 285:16 293:20
297:14 303:12 354:13 355:20 360:
11 374:19,23 401:21 405:7 432:
18,25 433:1,9,24 434:9,22 435:1,
13 446:13,23 447:5,23 449:7,14
472:12 477:4
metric [2] 385:4 445:9
metrics [3] 287:5 413:9 414:2
MICHAEL [4] 269:4 458:19 459:6
466:4

microprocessor [1] 304:16
mid-afternoon [1] 453:8
middle [2] 354:8 460:9
might [28] 270:4 306:4 313:11,24
317:9,19,20 322:23 333:8 338:9
380:19 409:19 435:4,6 444:24
449:22 450:2,10,12 454:25 461:
11 467:3,11 469:18 474:24 479:1
480:24 487:17
million [9] 322:3 392:1,6 396:3,4,7,
8 450:13,13
millions [1] 439:19
mind [7] 288:12 301:24 303:14
309:19 352:20 387:1 421:5
minds [1] 273:3
minute [1] 406:19
minutes [15] 281:5 324:21 391:16,
17,19,21 392:1,6,8 409:24 412:21
446:25 447:8 448:2 449:16
miss [3] 316:5,8,10
missed [3] 336:17,19 337:15
misses [3] 317:1 336:23 337:2
missing [6] 302:10 428:22 429:6
431:11 435:6 470:23
missings [4] 431:3,5,6,10
misspoke [1] 442:3
misunderstood [1] 312:17
misuse [2] 336:16,22
Mitchell [1] 268:14
mitigated [1] 403:18
mix [1] 302:6
mobile [2] 283:19 305:15
model [4] 396:11,25 443:20,21
modified [2] 394:10,15
moment [1] 276:24
moments [1] 476:21
Monday [1] 293:5
money [3] 311:5,6 462:12
month [1] 467:7
months [2] 366:20 383:24
Moreover [1] 274:4
morning [11] 270:3,5,18 272:15
280:24,25 281:10,22,23 325:4,7
most [11] 273:4,14 282:11 312:17
323:6 353:16 371:15 380:22 381:
23 391:14 423:21
motion [11] 270:13,20,23 271:1,13
272:6,12,18 274:20 275:10 326:6
move [7] 276:2,10,17 277:19 292:
8 377:4 414:16
movie [4] 387:19 451:6,21 476:19
moving [3] 355:25 426:16 438:9
MPAA [62] 268:9 275:21,24 276:2,
10,12 296:25 298:3 299:1,17 300:
2,7,23 301:19 309:1 318:24 325:
17 326:20 333:19 335:10 343:17
344:4 350:3 354:12,19 355:7 356:
12,23 366:13 375:10 376:25 379:
5 381:25 385:22 386:10,20 388:
19,23 389:15,22 390:3,5,11,21,25
391:4,9,21 392:1,5 393:15,17 399:

15 410:24 411:4,21 414:9,21,22
416:14 454:13 457:2
MPAA's [8] 278:8 343:15 344:24
376:20 390:22 392:18 399:6,17
MPAA-represented [1] 410:21
Ms [60] 272:10 275:1,13,16,21,25
276:9,21 277:10,16 278:5,15,22
279:7 280:4,7 281:13,19,21 287:
16 290:2,4,12,14 292:8,12,16,17
295:9 296:21 308:7 310:5 311:15
315:22 319:15 324:15 327:17 329:
5,7 331:15 332:17,24 333:5,15,22
339:5 346:20 361:2,5 364:17,19,
21,24 366:22 369:12 469:4 491:4,
6,8,9
much [26] 278:18 308:13 323:12
324:5 338:20 341:21 342:1 343:
17 364:3 369:24 397:3 400:6 402:
9,18 403:3 405:7 427:16 432:25
436:24 457:14 470:10 485:23,24
489:12,25 490:10
multi-client [1] 312:5
multiple [8] 287:1 379:13 386:16,
17 394:6 403:12 436:16 441:12
music [4] 372:12 438:10,13,16
must [5] 277:14 314:18 315:4,7
346:24
myself [4] 286:9 357:6 381:6 449:
10

N

N.W [3] 268:15,22 269:7
name [16] 281:24,25 288:1 295:6
313:16 325:4 361:8,11 370:4 372:
10 379:25 466:9 467:15,19,22,25
named [1] 458:19
names [4] 465:24,24 468:13,17
narrow [1] 272:8
narrower [1] 272:1
national [23] 297:24 298:6 300:14,
24 301:14 304:3 305:24 306:6,16,
19 308:1,9 310:7,14 320:19 349:
19 352:19 362:7,15 363:1 371:8
383:6 395:7
nature [8] 273:17 275:3 425:14,16
426:9 468:18 484:14,15
NBC [1] 443:2
near [1] 341:6
nearly [1] 396:22
necessarily [1] 487:2
necessary [4] 388:14 393:22 402:
2 461:18
need [18] 273:23 274:4,7,17 297:
16 301:5 314:6 319:8,13 326:9
328:3 330:12 341:18,21 350:11
424:6 489:13,15
needed [1] 415:19
needs [3] 279:5,6 354:20
negative [9] 480:12,19,23 484:18,
18,19,19 487:1,22
negotiating [5] 457:12 461:23

462:18 463:9 482:12
neighborhood [1] 303:7
neither [1] 316:9
nervous [1] 302:10
net [1] 378:22
network [14] 301:14 382:4 392:21
  437:15 441:16,18,20,23 442:8,19
  443:1,2,11 476:19
networks [10] 283:18,21 286:1,2,5
  320:20,21 352:21,22 441:13
never [3] 319:1 422:24 423:11
new [13] 284:17,19,23 285:1,1,2
  286:4 306:20,22 307:8,21,24 308:
  2
newspaper [1] 372:12
next [10] 328:9 333:23 335:15 354:
  14 363:16 412:7,18 415:12 437:
  19 489:1
nice [1] 387:13
Nielsen [107] 273:10 282:11,14,15,
  19 283:2 285:5,22,24 289:6,16
  290:16 291:9 292:2,19,25 293:1,
  18 294:1 295:6,11 298:3,20 300:6,
  11,16,20,24 301:16,17 303:16,19
  304:18 308:8 310:11 311:17,20
  312:9,21 319:11,19,25 320:11
  326:24 327:14 347:25 350:15 354:
  19 355:6 356:11,22 362:25 363:
  19,23 364:1,2,10,12 365:2 366:14
  367:6,10 380:1 382:23,24 383:1,8,
  19 395:6 396:19 398:22 418:6,11,
  15,22 419:8,9,15 420:11 421:3
  422:16,20 423:12,17,18 425:3
  426:1 428:7,20,25 430:18 450:25
  451:10,13,14 460:11 464:19 465:
  4 470:21 471:8 474:24 476:13,23
  477:2,8,15 481:6
Nielsen-based [1] 354:13
nine [1] 322:11
nobody [3] 312:22 317:6 428:25
non [1] 421:13
non-cable [3] 299:6 308:17 309:
  25
non-distantly [1] 351:14
non-linear [1] 439:13
non-metered [1] 479:16
non-random [2] 385:20 477:11
non-recordation [1] 420:5
non-recorded [12] 313:5 320:10
  359:24 418:21 419:3,15 420:1,12
  427:12 430:2 439:20 452:10
non-satellite [2] 299:9 308:20
non-sweeps [4] 428:9,19 429:2
  430:12
non-U.S [1] 408:15
non-viewing [1] 316:21
non-zero [1] 427:5
none [6] 314:9,10 329:14 429:5
  469:5 491:21
Nonetheless [1] 432:1
noon [2] 448:15,16

nor [1] 356:15
normal [1] 353:4
note [3] 282:25 294:5 480:10
noted [5] 272:9 292:1 303:5 358:2
  367:21
notes [2] 405:19 493:5
nothing [7] 277:8 314:1 321:3 360:
  23 367:22 475:15 486:18
notice [2] 270:4 484:12
NPM [1] 301:18
NPM-metered [1] 319:21
nuanced [1] 306:3
Number [80] 276:7 292:14 295:19
  303:13 318:21 319:6 320:9,17
  321:23 322:2 323:16,17,25 331:
  13,19 335:12,25 339:5 340:7 350:
  10 353:23 357:16 358:12,13 359:
  1,3,9,24 360:2 377:9 380:16 384:
  16 385:6,23 387:14,15 388:11
  389:14 390:14 391:8,16 394:11
  395:16,20 406:9 419:11 425:25
  429:15 430:25 435:15,18,23 436:
  2 438:15,17 443:8 445:20,21 446:
  15,25 447:8 448:2 449:15 450:6
  467:1 471:15,16,18,21 472:4 473:
  14,18 478:19,22 479:3 484:10,18
  485:18 487:4 492:2
Numbers [32] 278:3,14 294:22
  295:18,21 296:15 301:15 304:25
  306:18 307:3,4 322:1 323:10 330:
  24 341:22 343:2 360:16 363:5
  391:25 400:9 411:4,7,25 413:12,
  21 421:20 422:6 425:4 427:15
  429:13 430:23 484:8
numeric [2] 319:9,9
NYMAN [7] 269:5 292:12 361:2,5,
  11 364:17 491:8
NYU [1] 282:9

O

object [7] 327:17 329:17 331:15
  339:5 409:17 448:6 468:25
objected [1] 271:23
objection [27] 276:4 277:2,6,25
  289:24 292:10,12 327:17 374:10,
  11 377:6,7 401:12 408:24 409:13
  415:4,7 416:24 417:7 431:17 447:
  10,18,19 448:21,25 468:24 483:11
objectionable [1] 273:22
observation [7] 336:2,18,24 352:
  13 396:7 399:19 423:12
observations [10] 289:2 350:19,
  20 395:16,21 396:8 423:3 439:18,
  20 483:19
obtained [1] 383:4
obviously [8] 274:19 281:1 287:2
  326:19 440:6,24 456:12,13
occur [2] 353:12 470:2
occurred [5] 307:20 310:15 314:8
  317:18 357:18
occurrence [2] 316:19 420:17

occurring [6] 313:9 314:11 319:1
  338:10 353:2 355:20
occurs [3] 304:8 456:16,18
odd [1] 311:21
odds [6] 314:9,11,17,19 315:2 319:
  3
offer [5] 280:16 287:18 290:8 350:
  19 374:7
offered [3] 329:15 357:17 393:18
offering [6] 272:9,10 278:11 288:8,
  13,15
offhand [1] 350:7
often [3] 390:23 419:22 483:9
Okay [118] 276:23 277:4 280:1 281:
  3 291:18 326:16 328:2,11,23,23
  329:3,4,6 330:6 331:12 335:17
  339:14,19 340:1 347:22 354:16
  355:4 361:3 363:16 369:14,18
  370:19 371:3,21 373:13 376:4,14
  377:17 378:3,13 379:18 380:3
  381:1 382:22 386:6 389:5 390:8
  395:15 396:23 397:20 398:2 400:
  12 402:7,22 403:7 406:8 407:16
  408:7,17 410:10 411:15,19 412:6,
  23 413:7 414:14 415:1 416:17
  419:17,20 420:19 421:15 424:21
  427:17,22 429:9 430:13 432:11,
  23 433:7 435:13 438:19 439:6,15,
  22 440:5 442:15 443:1 447:14,21
  448:17,20 450:20 454:15 455:8,
  12 456:12 458:17 459:9,12 461:8,
  13,17 464:10 465:16 466:25 467:
  14,24 468:7 469:20 470:9 471:25
  474:6,8 477:1,25 480:22 482:4
  484:6 485:15 486:10 488:17 489:
  5
OLANIRAN [37] 268:10 369:4,15,
  19,22 370:2 374:7,14,15 377:4,11,
  18 398:3,6 400:20,23 401:12 408:
  24 409:13 415:4,21 416:24 417:9
  431:17 447:10,18 448:21 449:2
  481:13,14,20 482:23 483:10 489:
  9,15 491:12,15
old [5] 352:18 355:17 357:5 381:1
  411:21
omitted [5] 438:5 441:19 442:2,4,
  6
once [8] 340:5 360:18 388:3,16
  396:5 397:16 430:12 449:11
one [103] 274:18 276:24 278:6 279:
  5 287:1 291:15 292:1 296:13 301:
  23 303:21 306:11 312:16 313:22
  314:22 315:13 320:7,7,15,18 322:
  10,16 323:3,20,21 333:7 337:4,19
  338:18 344:10 346:2 347:14 348:
  23 355:22,24 357:5 360:7 363:5,
  12 364:7 365:24 366:25 367:9
  372:13 376:12,22 380:11,11 381:
  22 385:9 386:23 391:14,18 395:
  11,12 400:2,8 403:14 409:20 412:
  18 413:2,10,10,10 415:20 417:22

occurring continues ...

occurring ...

423:15 433:3,11,13,14 435:6 436:
  25 438:1 439:16 440:1,18 448:14,
  15 450:10 452:3 454:23 456:12
  459:5,20 461:16 464:18 465:14
  467:4 469:4 470:3 471:19 474:7,8
  478:25 484:13 485:6,6,16 486:5,
  19 487:21 489:7,18
one-hundredth [1] 376:22
one-third [1] 414:9
ones [3] 388:19,20 443:2
only [30] 277:22 292:1 303:21 308:
  22 310:9 322:16,25 323:3,16 336:
  22 337:21 339:25 341:12 347:25
  358:11 360:1 362:18 376:19 385:
  25 395:24 403:14 424:18 429:24
  430:25 432:3 443:2 450:11 467:
  19 474:8 476:2
open [2] 429:10 460:1
opened [2] 326:2 459:21
opening [2] 348:19 453:19
operating [1] 440:25
operation [1] 407:3
operator [2] 273:9 469:11
operators [15] 342:12,13 363:18
  367:5,10,14,17 443:24 453:5 454:
  2,3 468:8,11,14 469:13
opine [2] 486:12,12
opining [1] 274:18
opinion [11] 272:19 273:1,16,25
  343:22 344:8,9 354:24 378:13
  394:23 400:12
opinions [2] 271:15 275:7
opportunities [1] 450:13
opportunity [11] 280:11,16 435:2,
  10,19 436:1,2 450:12 453:1,2,8
opposed [6] 272:5 306:24 337:23
  386:10 391:18 483:8
oral [3] 270:19 459:1 483:15
orally [1] 458:24
orange [2] 291:13 375:15
order [39] 279:18 283:10 287:5
  294:24 300:21 305:8,11 307:13
  311:9 313:6 317:2 319:7 321:16
  324:21 326:18,23 330:13 337:18
  340:18,25 341:19 348:12 366:6
  367:5 388:13 390:1 391:2,7 393:2,
  6,7 396:2 400:15 401:16 444:3
  452:12,13 488:19 489:1
order's [1] 394:11
ordered [1] 415:10
origin [5] 382:17 407:8,12 409:10
  410:7
original [6] 373:17 393:23 398:25
  405:13,14 450:20
originally [2] 344:23 345:16
other [38] 274:10,10,19,23 286:25
  289:1,11 313:23 315:13 324:3
  337:8,8 351:2 355:24 357:23 358:
  18 362:17 363:7 365:24 380:19
  381:15 404:5 416:3 423:4 424:19
  426:21 428:23 436:20 439:1 450:

12 466:5 468:17 469:17 475:4
482:16 486:6,10 488:14
others [5] 275:5 322:11 360:17
436:17 441:13
ought [1] 320:3
ourselves [1] 344:4
out [53] 272:4 274:21 279:17 280:
17 283:12 284:17 288:5 293:19
301:15 302:1,22 305:10 306:24
309:24,25 312:23 317:2,14 318:7,
7,20 321:3,14 324:5 332:25 336:
22 348:25 355:13 356:17 406:20
408:23 412:25 422:16,20,22 423:
6,6 424:2,11,22,23 425:8 427:12
428:10,11,12 463:10 474:18,25
475:4,5 488:19,25
outcome [1] 456:10
outlier [1] 388:10
outlined [1] 435:9
outside [1] 476:13
over [26] 297:18 298:15 315:19
317:14,16 347:6 355:15 357:10
358:24 389:23 392:5,7 400:6 404:
2,15 418:7,13 423:13 436:16 441:
13,13 444:22 445:6 451:6 487:25,
25
over-the-top [1] 357:21
overall [11] 295:5 335:25 338:2
343:14 357:24 358:5,20 396:10,
25 399:14 420:21
overlap [2] 470:10,13
overlapping [1] 470:4
overly [1] 275:19
overruled [3] 278:1 329:21 416:9
overseer [1] 466:18
overstated [1] 318:3
own [12] 273:17 319:2 330:7 334:
16 344:9,24 367:6,12 407:8,9 415:
2 481:8
owner [9] 381:25 454:22 455:1,25
463:8,17,25,25 482:12
owners [1] 375:5
ownership [2] 364:14 457:3
owns [1] 454:23

P

p.m [4] 368:3 369:2 453:13 490:11
page [44] 272:23,25 326:2 327:7,7,
9,11,12 328:10,19 333:11 334:22
335:6,10 354:7 365:4,7 376:13
389:6,8 390:8 391:11 392:9 410:
15 412:6,7,7,17,18 413:15 437:13,
19 441:9,9 459:21 460:1,2,9 464:
15 465:2 476:4,8 478:9 483:4
pages [5] 271:10 272:16 275:11
478:2,3
paid [16] 342:12 387:23 394:20
400:4 405:21,25 406:5,9 432:10
443:23 444:12 445:17 446:16 471:
25 472:4,6
panel [2] 332:15 335:22

papers [1] 276:1
paradigm [2] 465:11,14
paragraph [13] 335:10,15,15,19
354:14 410:14 412:19 460:17,23
464:18,22 465:2,10
part [25] 276:15 278:8 282:25 286:
25 287:3 288:18 301:10 314:4
324:7 331:20,20 332:19 333:17
339:7 344:24 352:24 353:4 382:9
383:2,21 408:20 418:8 434:22
435:22 442:17
partially [1] 382:3
participate [1] 295:8
participated [1] 287:12
particular [38] 275:10 288:22 295:
13,16 296:24 309:13 315:18 317:
7 321:24 325:10 332:20 336:25
337:7 342:4,4 382:25 385:12 387:
16 414:21 416:17 420:16 423:8
428:18 439:12 443:6 445:13,15,
16,22 446:5 457:22 458:2 459:5
470:13 471:9 478:6 486:16 487:
21
particularly [5] 270:24 298:11
400:7 477:18 479:13
parties [7] 275:23 374:25 375:7
379:11 393:12 403:20 440:13
parts [1] 408:19
party [2] 393:8 400:8
passively [1] 304:16
past [7] 282:13 287:8 290:9 320:
17 326:12 329:14 469:13
Paul [6] 276:13 280:5 281:15 282:
2 291:20 491:3
pay [8] 312:7,7 455:9,14 456:2,4,8
457:6
pays [1] 457:23
peer-reviewed [1] 372:16
pejorative [1] 418:12
penetration [1] 357:15
Pennsylvania [2] 370:12 373:7
people [75] 289:7 293:14 295:2,7
296:14 297:12,15,21 300:15,24,25
301:24 302:3,13,22 303:6 304:2,5,
11 305:10,24,25 306:4,6,16,19,22
307:10,21,24 308:1,9 310:7,13
315:4 320:19 321:24 322:21 323:
2,17,22 324:1 334:10 337:21 341:
13 342:15 349:19 352:19 359:4
360:5 362:15 363:1 383:6 391:14
395:7 419:1,4 422:21 423:4,7,10
425:9,24 465:25 466:5 469:18
474:12,18,23 477:16 485:10 486:
1,8,13 488:4
people's [1] 336:2
per [2] 309:20 447:1
percent [76] 306:20 307:8,9 316:7,
8,14,16 318:2 320:22 322:17 323:
1 331:6,13 339:2,8 352:16,18 392:
18,19,24,25 399:16,16,18,18 411:
8,16,25 412:2,12,13,25 413:6,10,

10,18 421:16,24 422:8,19,24,25
423:2,9,16,17,20,25 424:9,12,17,
18,20 425:1,6,9 426:20,22,23,24
427:18,21,23 428:8,12,15 430:25
431:7,15 438:7,10,17 441:25 452:
1,4 472:13
percentage [12] 321:20 336:19
339:22 350:14 357:9 376:23 388:
22,23 419:18 422:17 423:18 470:
1
percentages [2] 379:16 392:5
perfect [1] 306:11
perfectly [1] 314:15
perform [4] 300:16,21 301:17 355:
7
performed [6] 297:6,7 300:11 319:
19,22 384:3
perhaps [8] 272:25 273:2 280:25
364:12 432:12 437:24 467:2 472:
8
period [32] 279:21 290:20 291:4
293:3,17 297:2,9,18 298:4,12 303:
5,6 305:3 310:16 317:10,16 344:
19 345:6 346:17 349:7,14 351:25
356:17 357:4 366:13 396:19 397:
10 433:12 451:23 474:23 477:21
478:17
periods [4] 290:24 303:11 313:7
319:3
personal [1] 279:5
persons [1] 301:7
perspective [3] 348:14 371:14
482:21
pertinent [1] 274:11
Ph.D [2] 370:11 375:24
Phase [10] 276:14 346:21,22 347:1,
10 373:16,20 440:11,19 441:8
phenomenon [2] 344:1 385:11
phone [9] 280:18 294:16,22 295:
18,19,21 296:15 305:2 363:5
phones [2] 296:9 305:3
phrase [1] 419:12
phrased [2] 474:3,5
Pick [2] 268:4 389:25
picked [1] 386:4
Picture [1] 326:7
pie [1] 359:7
piece [2] 290:22 310:2
pieces [1] 359:8
pile [2] 335:24 414:23
Pillsbury [1] 269:6
pinpoint [1] 369:17
Pittman [1] 269:6
place [1] 440:3
place-based [2] 283:21 286:5
places [1] 471:7
plain [1] 411:21
planning [1] 270:10
play [3] 285:14 438:3 463:13
players [3] 425:22,25 426:3
Please [29] 270:3 278:14 281:11,

18,25 284:8 285:22 291:16 298:
19 324:24 327:7 332:13 346:23
347:7 369:4 370:4,7 375:18,21
387:2 389:6,11 391:12 392:12
398:8 421:7 447:3 453:14 476:4
PLOVNICK [52] 268:11 275:13,16,
21 276:9,21 277:10 278:5,15,22
279:7 280:4,7 281:13,19,21,25
287:16 290:2,4,12,14 292:8,16,17
295:9 296:21 308:7 310:5 311:15
315:22 319:15 324:15 327:17 329:
5,7 331:15 332:17,24 333:5,15,22
339:5 346:20 364:19,21,24 366:
22 369:12 491:4,6,9
plus [1] 303:3
point [33] 274:21 277:8 279:16
296:6,10,18,22,23 297:23 298:12,
18 305:10,23 307:18 316:23,24
318:10,12 323:2,4 331:12 338:20
342:16 343:11 355:18,21,23 363:
16 376:23 377:16 432:5 450:21
472:25
pointed [1] 272:4
pointing [1] 437:22
points [6] 315:12 318:4,5 340:8
341:10 475:5
Policy [1] 372:22
polling [1] 385:17
pool [1] 413:19
popular [1] 485:24
population [11] 330:18,20 337:20,
22,24 341:5,11,20 372:22 384:25
422:18
populations [3] 342:6,15 359:23
portion [6] 277:16 340:6 412:1
460:5,6,8
position [7] 282:18,20 285:13 326:
20 343:25 370:15 452:23
positions [1] 325:17
positive [18] 318:19,20 422:6 427:
4 430:4,24,25 431:15 439:19 470:
17 471:6,18 479:22 480:5 481:4
485:2,18 486:25
possibility [2] 404:14 413:1
possible [6] 342:2 386:3 403:24
404:1 422:3 443:17
possibly [1] 445:19
potential [5] 341:10 379:1 437:16
462:4 464:8
potentially [2] 274:5,10
power [2] 461:23 462:18
pre-regression [2] 429:8 430:10
precise [5] 388:13 403:13 427:1
433:18 444:25
precisely [3] 406:1 443:17,21
preclude [1] 272:13
predict [13] 382:10 403:23 425:7
427:9,12 428:22 429:3,4 432:6
443:21 450:22 452:8 471:24
predicted [2] 388:17 469:10
predicting [1] 450:18

337:6 343:6,16 394:16 421:11
447:7
rating [7] 343:8 450:15 471:10 479:
18 487:4,6,7
ratings [83] 273:10 291:6,7 311:18,
19 312:10,18 349:6,12 363:13
365:2,6 383:8 387:10 397:11 400:
2,3 403:16 419:9,13,16,24 420:3,8,
12,14,15 421:4,6,11,14 422:6 430:
6,15 432:8 438:16 444:16 445:1
446:21,21 449:23 450:1,3,20,25
451:1,10,15,19,20 452:6,7,8 469:
10,19 470:7,19,20 471:11 476:14,
15,23 477:2,3,5,9,10,13,14 479:1,
4,15,24 480:1,3,14 481:5,7 483:20
484:2,4 485:24 488:2
ratio [2] 390:21,21
RAUL [1] 269:12
raw [3] 356:25 430:23,23
re-create [1] 311:9
reach [4] 294:17 296:4 450:11,13
reached [5] 333:17 380:17 385:7
387:14 438:16
read [25] 271:8 272:24 326:9 328:2,
3,8,21 329:1 330:4,6 335:14 343:
6 354:9 391:24 460:5,9,13 461:5,
9,11,14 464:17,18 466:24 468:10
readily [2] 350:11 356:18
reading [4] 327:18,22 328:25 460:
7
readings [1] 426:20
ready [1] 278:25
real [3] 284:24 313:4 485:14
Realistically [1] 348:17
reality [8] 316:6,8,16,17 337:3 338:
16 348:10 359:5
realize [1] 357:13
Realizing [2] 280:15 321:6
really [33] 283:3,7 298:6 301:20,22
304:4 305:5 306:13 312:19,20
317:21 318:12 319:11,24 320:15
322:15,21 323:5 330:15 338:20
339:4 340:17 353:3 358:17 360:1,
6 402:17 435:20 453:1 455:19
463:14 464:3 475:23
realm [2] 315:6 413:1
reason [10] 302:21 330:3 344:13
345:10 346:15 352:24 416:17 427:
15 461:13,16
reasonable [5] 273:3 317:22 356:
6 396:14 456:10
reasonably [6] 295:1 387:6 399:5
402:13 418:20 463:5
reasons [9] 275:9 286:16 301:20
320:15 343:3 350:22 367:20 461:
16 478:25
reassuring [1] 404:8
rebroadcast [2] 456:9 458:2
rebroadcasts [2] 457:6 458:10
rebut [1] 277:9
rebuttal [9] 277:6,24 278:9 325:14

326:5 365:25 417:12,17 432:17
recall [48] 320:18 325:13,18,19,23
345:5,9,15 347:9,12,20 348:20
350:7,8,10 352:14 355:4 365:14,
16 366:6,9 377:23 401:23 416:15
419:17 432:23,24 433:8,13,14,22
434:17,20,25 442:9 452:14,24
458:17,21 459:2,11 461:12 467:2,
11,13 468:4,13,17
recalled [1] 434:9
recalls [1] 434:16
receive [2] 342:23 420:23
received [9] 276:8 278:4 292:15
298:25 299:3 308:15 309:1 377:
10 386:17
receives [1] 414:8
receiving [1] 354:4
recent [1] 466:15
recently [1] 326:15
recess [7] 280:25 281:8 324:22
368:3 453:11,12 489:25
reciting [1] 468:25
recognize [5] 466:6 467:15,19,22,
25
recognized [1] 466:4
recollection [4] 365:5,19 434:12
484:25
recommend [1] 298:2
recommended [3] 374:22 388:25
398:13
recommending [2] 273:18 301:
21
reconcile [1] 422:7
reconsiders [1] 271:5
reconvene [1] 490:1
record [18] 271:9 281:24 282:1
327:18,22 328:3 329:12,19 330:7
332:17,19 339:7 366:7 370:4 393:
11 490:2,3,5
recordable [1] 472:18
recorded [6] 351:13,16 358:4 359:
11,13 428:19
records [1] 329:18
recoup [1] 457:10
RECROSS [3] 367:2 483:2 491:2
RECROSS-EXAMINATION [1]
486:22
recruit [1] 305:11
recruited [1] 294:16
redirect [6] 277:12 364:20,23 366:
24 481:19 491:2
refer [2] 398:22 471:25
reference [3] 339:6,8,8
referenced [2] 331:13 354:25
referred [6] 356:11 376:1 441:11
467:4 468:14 472:3
referring [8] 349:11 420:24 433:1,
23 445:2 452:5,13 460:16
reflect [4] 313:12 420:8 421:17,23
reflecting [1] 390:22
reflects [2] 469:22,24

refresh [1] 434:12
refreshed [1] 365:19
refreshes [1] 365:5
regard [20] 272:11 273:16 288:3
332:8,20 334:21 347:22 349:5
396:17 400:13 409:25 413:12 416:
3 419:8,21 446:13 479:13 481:22
482:19 483:4
regarded [1] 273:14
regarding [11] 270:14,20 272:21
329:10 336:5,24 343:4 380:8 382:
15 399:20 444:3
regardless [1] 296:2
Register [7] 332:10 333:2,6,8 369:
16,23 459:18
registrations [1] 407:17
registry [1] 355:16
regression [33] 379:14 382:9 384:
3 394:6,9,15 396:11,25 397:4 403:
12 423:14 425:7 426:9 427:16
430:8,20 436:18 437:1,8,10 438:
25 439:4,6,10 443:20 449:20,21
471:23 474:25 475:10,13 478:5
479:21
regressions [6] 356:3 387:25 388:
14 422:4 425:17 446:14
regulated [4] 455:16 456:13 462:6,
24
regulation [1] 277:19
regulations [1] 276:18
regulatory [2] 370:25 371:19
rejection [1] 333:13
relate [1] 272:18
related [6] 271:20 300:12 407:22
437:6,6 485:6
relationship [19] 358:4 384:4 387:
9 388:3,4 390:5 399:25 400:5 403:
16,19 404:1 429:20 430:5,7,10,13
452:22 479:23 480:6
relationships [2] 397:17 428:23
relative [41] 273:20,24 274:5 330:
12 331:4,5,8,11 378:7,14 379:3,5,
7,10,17 390:6,22 436:20 438:6,13,
18 439:1 441:21 442:5 453:22,25
454:1,4,6,7,8,8,10,11,13,15 455:
17,22 457:19 481:22,25
relatively [5] 385:11 390:6 419:2
420:17 422:12
relevance [11] 415:5,6,7,9,22 416:
25 417:1,7 452:21 469:2,3
relevant [2] 274:2,11
reliability [1] 404:12
reliable [2] 273:14 397:8
religious [5] 273:6 479:10 480:11
484:10,10
rely [4] 363:19,23 364:3 379:19
relying [3] 364:1 398:14 408:1
remain [1] 369:4
remains [1] 399:12
remand [2] 432:20 433:4
remarkably [1] 427:16

remarks [1] 453:20
remember [5] 297:8 352:16 419:
12 434:24 442:2
remembered [1] 466:8
remove [1] 405:11
rendered [1] 355:6
reopened [2] 300:19 393:11
reopening [1] 366:7
repeat [5] 273:13 339:15 349:9
421:6 461:17
repeated [1] 490:7
repeatedly [2] 337:10 490:7
rephrase [3] 288:11 473:24 474:1
replace [1] 476:13
replacement [1] 304:13
report [12] 283:16 291:5 333:14
349:20 375:12,25 396:11 410:12
413:3 428:2 434:11 483:4
Reported [6] 267:24 351:7,8,13,
16 452:19
reporter [2] 391:25 493:10
reporting [3] 291:3 308:3 360:10
reports [8] 291:2,7 311:20,24 312:
25 318:24,25 319:17
represent [7] 288:2 325:5 361:11
401:4 411:2 441:17 475:22
representative [1] 310:1
represented [12] 381:25 386:10
388:20,21 389:15 390:3,4 391:1,4,
5,9 412:1
represents [2] 312:21 398:9
request [1] 364:12
requested [1] 393:12
require [1] 286:14
required [1] 286:20
requirements [1] 281:3
requires [1] 277:11
reread [1] 354:18
rerun [1] 376:19
research [24] 282:15,16,22,23 284:
2,3,4,6,9,10,14 285:1,6,13,23 286:
9 287:19 290:6 295:4 370:14,16,
20 371:3 372:22
residents [1] 294:10
resolution [2] 386:14,19
resolve [1] 394:16
resolved [1] 394:23
resource [1] 348:13
Resources [1] 372:22
respect [3] 381:1 415:25 425:12
respond [2] 395:13 485:9
responding [2] 327:2 444:2
response [3] 340:2,3 348:2
responsibilities [3] 283:5 371:13,
14
responsible [2] 283:7 376:5
responsive [1] 400:19
rest [3] 340:25 388:9 437:9
restrictions [1] 296:17
result [3] 336:3,6 358:2
results [23] 343:15 344:8 387:4

396:16 397:4 398:20,25 401:25 402:4,5,9,21 404:11,17,22 415:13 437:1,10 449:20,21 472:12 478:5 479:21

resumed [4] 281:9 290:13 324:23 453:13

retain [2] 273:8 458:14

retained [1] 356:13

retaining [1] 378:24

retention [1] 310:22

retired [2] 282:13 292:2

retransmission [6] 342:10 390: 12 431:23 446:2,5 458:6

retransmissions [6] 390:19,25 391:1,4 406:25 458:11

retransmit [3] 456:5 457:13 482: 15

retransmitted [31] 272:3 321:21 323:13,15 351:12,14,17 375:6 380:9,13,24 381:11 382:7 384:15, 24 390:16,18,23 391:10 392:2,7,8 406:4 410:23 411:13 443:7 447:6 448:1 457:20,22 476:15

Returning [1] 359:20

revenue [3] 287:1,3 378:23

review [9] 357:3 372:21,23 407:16, 21,24 417:12,17 458:20

reviewed [5] 326:12 458:25 466: 20 467:9 481:2

reviewing [2] 276:25 325:13

revised [1] 333:13

revolves [1] 286:22

rewriting [1] 348:11

rich [2] 381:7,18

Richard [1] 467:24

RMR [1] 267:24

Robinson [2] 326:5 327:13

Robison [1] 339:9

robust [1] 427:16

robustness [2] 402:4 404:10

role [1] 371:15

roles [1] 289:15

rolled [1] 302:22

rolling [1] 302:1

room [2] 304:12 424:19

Rosston [2] 467:16,17

rough [1] 322:18

roughly [5] 411:9,11 412:3,14 419: 17

round [15] 325:9,11,15,20 326:17 327:4 401:10,16 402:10 417:14, 16 432:16,19 433:3 458:18

royalties [2] 342:10 457:1

ROYALTY [21] 267:1,6,9 332:9 342:4 374:20,22,24 384:8 388:6, 25 389:16 390:7 391:23 393:10 398:13 431:23 455:9,14 456:20 459:24

rule [5] 271:3 277:11,17 352:19 416:19

rules [2] 364:3,14

ruling [10] 270:13,16 271:2,4 376: 18 386:14 414:24 415:23 416:2, 16

rulings [3] 271:5 296:13 416:4

run [5] 425:7 446:25 447:6,7 449: 15

rural [2] 477:19,19

S

S.E [1] 267:17

safe [2] 281:5 331:10

sake [4] 277:17 319:24 391:25 431: 13

sales [2] 284:3 367:20

salient [1] 273:4

same [74] 290:8 306:6,11 308:14 318:15 321:1 342:19 344:21 345: 7 350:4,6 354:1 364:16 377:13 404:9,22 405:7 419:14 434:21 438:14,14,16 439:14 446:24,25 447:1,7,8,8,24,25 448:1,2,3,6,7,7, 11,12,12,16,21,22,23 449:8,8,13, 15,15,16 464:11,14,15,15 469:25 470:5,25 471:13,14,15,16,17,21, 22,23,24 472:2,3,3,8,9 476:16,16 479:18

sample [49] 283:13,14 290:23 294: 5 297:24 298:6,9,13,14 300:15,25 301:2 303:6,10 304:3,3,20,21 305: 21 306:17 307:13 309:14,17,23 310:1,14 313:10 322:14 324:7 330:23 338:19 343:15,16 361:15 362:15,16 363:10 380:23,23 381: 9 383:25 384:13,14 385:1,20,21 428:25 474:22 477:11

sample-based [1] 313:9

samples [3] 303:24 307:23 384:19

sampling [19] 293:20 294:6 295: 11,21 301:6 308:1 309:22 316:24 318:12 340:8 361:20,25 362:12, 21 363:5,6,19 384:10,11

Sanders [9] 270:22 271:14,17,22, 24 272:7,13 273:1 274:22

Sanders' [9] 270:15 271:11 272: 17,19 273:16,25 274:9,14 275:11

Santa [1] 370:10

satellite [90] 273:12 283:20 286:6, 7,14 290:21,25 297:4 298:21,23 299:8,13,24,25 300:1 308:10,19, 23,23 309:7 342:12 347:16 358: 23 363:18 373:18,19 374:19,21 376:16,20 378:1,20,22 380:10,11 382:5 383:2,5,12,15,16,21 384:19, 21,23 385:1,2 386:24 387:24 388: 7,8,16 389:16 390:1 391:3,22 392: 23 393:11 394:21 395:9,12,25 396:2 397:14 398:17,23 399:10, 11,17 406:12,12,14 410:25 411:20 412:8,24 413:5,18,19 432:10 437: 6 443:23 454:2,20 456:5 457:11 458:13 461:25 463:21 482:17

Satellite's [1] 392:4

satisfies [1] 277:19

Saunders [1] 276:13

saw [1] 465:19

saying [23] 272:15 315:6 328:24 330:20 341:12 347:19 348:15 351: 21 360:1 410:20 417:22 428:25 429:9 437:20 439:15 446:14 456: 7 464:11 470:20 471:20 474:10 476:11 486:16

says [11] 277:13 336:1 343:13 375: 18 438:11 470:14,14 474:13 484: 13 485:1,17

schedule [2] 489:19,23

scope [1] 271:15

SDC [7] 272:5,6,9 273:20 361:1,12 483:12

se [1] 309:20

seated [6] 270:4 281:11,18 324:24 369:5 453:14

second [12] 287:3 290:22 298:9 300:10 304:1 325:9 377:16 398: 17 414:16 428:1 437:13 484:12

secondary [3] 462:20 463:4 482: 18

secondly [2] 302:11 452:5

section [4] 293:15 455:11 482:8,8

see [25] 301:15 319:1 329:9 333:7 341:13,14 351:15 365:5 389:21 390:4,20 391:20 425:23 434:1,6, 11,11 437:11,20 438:9 445:7,8 478:10 485:3 489:20

seeing [2] 302:16 353:1

seek [1] 457:9

seeking [1] 272:6

seem [3] 279:12 422:2 451:7

seemed [1] 307:14

seems [7] 277:7 312:16 335:22 422:2 424:5 426:10 485:5

seen [3] 350:16 465:18,20

select [5] 304:18 350:2 361:17 362:3 384:12

selected [7] 301:2 305:20 362:20, 23 365:23 384:16 385:24

selecting [4] 295:12 301:3 305:6 385:16

selection [2] 294:3 295:14

sell [2] 287:5 312:6

seller [4] 454:19 455:1,2 482:21

selling [2] 311:25 456:1

send [2] 295:12 305:10

senior [1] 282:21

sense [9] 308:4 313:24 315:3,5 348:15 352:3 361:24 406:10 426: 6

sent [4] 293:7,19 294:24 296:1

sentence [5] 327:11 328:8,21 354: 10 460:16

sentences [9] 270:21,25 271:2,7, 14 272:16,24 275:10 476:9

separate [11] 277:23 293:15 304:

10 307:24 380:10 383:11 387:24 389:19,19 395:9,11

separately [8] 290:20,25 306:25 307:25 308:22 388:9,15 437:8

series [1] 476:19

service [2] 305:2 371:15

services [7] 283:21 284:1 342:18 370:21 371:1,2,6

serving [1] 342:13

SESSION [2] 369:1 491:19

SESSIONS [1] 491:21

set [18] 271:10 285:1 286:11 293:8 301:1 303:22,23 304:10,17 336: 25 337:16 384:19,20 395:11 412: 19 425:10 432:15 489:4

sets [14] 292:21 302:7 307:3,4 310: 22 361:24 379:13 380:11,12 382: 23,24 383:12 387:1 421:3

settlement [2] 333:17,18

Settling [4] 268:19 269:2 361:12 475:22

seven [2] 390:18,19

seven-day [2] 293:3,17

Seventeenth [1] 269:7

several [4] 270:21 322:23 414:15 465:21

share [8] 376:21 386:24 392:18 399:6,15,17 412:24 413:21

shares [13] 374:22,24 376:16 377: 21 379:7,10,17 388:24,25 392:14, 17 398:12,13

Shaw [1] 269:6

sheer [1] 413:24

shift [1] 439:16

shifted [1] 310:12

short [4] 326:8 450:14 453:8,10

shortened [1] 281:1

shot [1] 481:18

shouldn't [3] 318:11 337:11 339: 18

show [8] 364:12 392:16 398:11 438:2 446:14 451:22 476:19,19

showing [1] 391:6

shown [1] 319:18

shows [5] 338:25 339:2 390:15 430:24 438:6

side [2] 312:6 437:14

side-by-side [1] 398:11

sides [1] 282:24

sign [2] 380:13,14

signal [3] 380:8,18 457:13

signals [6] 354:4 384:15,24,25 385:7,13

Signature [1] 493:10

signed [1] 488:19

significance [1] 288:22

significant [13] 305:13 339:1,21 349:1 418:5,10,14,18,19 419:10 479:22 480:6 481:4

significantly [2] 298:10 446:17

Silberberg [1] 268:14

similar [18] 298:24 302:17 308:12 390:1,6,20 396:2 399:5 402:5,12, 12,13 421:20 446:23 447:5,11,15 448:23
similarly [1] 466:5
simple [3] 416:23 422:12 426:2
simply [7] 322:11 330:22 336:17 344:10 348:23 361:19 367:20
Simpsons [4] 389:18,20 390:17, 17
simultaneously [1] 382:7
since [10] 277:8 280:23 292:2 295: 16 296:20 297:13 310:15 356:18 387:7 414:7
single [8] 284:14 301:23 324:2 338:19 376:20 423:15 429:23 444: 18
sitting [2] 456:19 467:13
situated [1] 466:5
situation [8] 316:18 330:17 331:3 414:20 416:12 420:7 469:20 470: 12
situations [7] 307:20,22 359:24 451:18 471:1,4 473:15
six [2] 483:7,24
size [21] 273:6,15 283:14 293:2 303:9 307:14 324:11 330:23 341: 3,5 350:25 353:11,20,22,23 354:3 363:10 438:15 487:15,19 488:2
sizes [3] 298:9 303:11 352:8
sizing-type [1] 284:4
skill [1] 493:4
slightly [5] 306:3 307:3 311:4 392: 5 399:18
slot [2] 337:7,12
small [16] 293:1 314:10 318:6 321: 20 323:16,25 337:20,23 338:14 340:21,21 360:2,15 421:13 460:6 461:7
smaller [12] 305:7,7 307:7 314:24 330:23 337:25 340:16,16 341:7 342:6 359:22 477:10
Smithville [1] 474:11
so-called [4] 319:17 440:11 466: 18 485:12
soap [1] 451:22
SOAs [1] 380:7
sociologist [1] 486:12
software [2] 311:9 348:12
sold [2] 283:8 286:24
solution [1] 338:23
solved [1] 339:4
somebody [7] 314:18 315:7 316:2 320:24 324:4 343:22,24
somebody's [1] 344:8
someone [3] 426:1 454:10 473:21
sometime [2] 409:12 453:7
somewhat [3] 361:24 403:21 440: 17
somewhere [2] 303:7 314:12
soon [1] 453:7

sooner [2] 281:6,7
Sorry [18] 282:5 301:10 311:14 336:11 342:25 345:22 349:9 366: 1 372:20 389:8 395:10 409:3 442: 3,23 448:4 449:10 457:1,25
sort [19] 289:1 308:4 314:20 323:4 335:23 357:6 371:12 379:2 381:7 387:23 403:18,19,22 410:20 429: 8 436:19 444:9 453:19 482:9
sorts [1] 408:18
sound [7] 366:11,12 411:9,17 412: 3,14 413:1
sounds [4] 315:1 411:11 426:7 473:9
source [3] 338:5 383:7 481:6
sources [5] 357:24 358:6 379:18, 21 383:1
south [1] 477:20
spaces [1] 485:1
speaking [4] 289:21 302:20 379: 21 445:12
special [1] 451:21
specialize [1] 282:16
specialty [4] 372:4 373:10,10,24
specific [5] 273:19 274:24 331:19 334:19 350:18
specifically [9] 272:21 371:10 387:2,7 393:14,16 403:25 410:13 432:24
specification [2] 394:9 405:11
specifics [1] 274:16
spell [2] 282:1 370:5
spent [2] 334:11 449:19
split [2] 299:15 359:7
sporting [2] 484:14,15
sports [6] 485:6,16,23 486:5 487: 23 488:5
sports-related [2] 485:2,11
spring [1] 326:18
SSO [1] 455:4
SSOs [3] 446:16 454:9 455:13
stand [2] 413:7 466:7
standalone [1] 277:23
standard [9] 291:2,5 317:20 357: 24 378:4,7,10 481:23,24
standing [1] 369:5
standpoint [1] 288:17
stands [1] 442:9
start [10] 281:7 316:12 340:9,10 347:5 381:13 418:6,12 437:11 461:1
started [2] 310:13 423:24
starting [6] 280:24 380:3 432:5 437:25 441:18 464:25
state [4] 281:25 290:3 330:8 370:4
stated [2] 292:18 377:19
'statement [12] 276:16 278:9 326: 6 330:3 336:12 343:7,19,21 354: 19 358:16 374:4 461:14
statements [6] 279:12,18 401:20 417:13,17 490:8

STATES [4] 267:1 311:22 327:13 437:14
stating [2] 421:1 426:8
station [37] 299:20,22 308:25 309: 7 321:24 337:12 338:17 341:13, 14 342:23,25 350:24 351:22 353: 19,20 360:8,10 384:12 436:3 437: 8 441:10,20,21,24 447:2,9 448:3,7 449:16 454:21 455:7,9 456:1,2 457:9 462:19 482:13
stations [69] 272:2 283:19 286:2 298:25 299:2,3,4,12,14 300:4 308: 15,16,18 309:3,5 312:7 313:7 318: 15 340:10,21 344:20 346:13 347: 11,17 349:7,25 350:1,2,5,8 351:13, 15,17,18 353:9,18 357:18,25 358: 14 360:2 365:1,6,10,11,12,14,17, 20 380:23,25 381:10,12 382:15 383:25 385:16,23 386:3,3 391:10 408:5 410:7,23 411:7 437:9,15 441:14 476:23 477:6 487:12
statistic [1] 483:21
statistical [8] 288:9,16 314:21 360:20 371:9,17,25 448:22
statistically [3] 479:22 480:6 481: 4
statistician [2] 288:6,14
statistics [18] 285:10,14 288:22, 23,25 289:2,8,17,18 339:20 340:4 360:20 371:1 372:5 374:9 424:6, 10 443:20
statute [1] 431:25
Staying [1] 464:14
stays [1] 279:22
stenographic [1] 493:5
step [2] 307:19 356:6
stepping [1] 362:5
steps [4] 296:8,20 355:25 379:8
stick [2] 389:25 429:21
sticking [2] 391:23 423:23
still [22] 277:20 288:19 296:11 309: 17 313:2 314:13 315:4 324:13 336:3,6 338:3,16,25 339:20,24 340:7 341:23 397:7 408:15 421: 23 422:7 434:20
stood [1] 488:11
Strategic [1] 282:22
stratification [1] 385:4
Stratified [2] 384:14,18
stratifying [1] 385:5
streams [1] 287:1
Street [3] 268:15,22 269:7
stressing [1] 360:4
STRICKLER [37] 267:13 270:16, 17 279:1 280:2,6 311:1,11 313:13 314:17 315:23 318:17 319:14 333: 4,10 348:3 351:11 352:9 403:8 404:13,25 417:24 418:1 423:22 424:8 425:13 426:7 451:3 463:7, 22 464:10,24 465:5 472:22 473:9 475:3,8

strike [5] 270:20 272:18 275:10 414:15 445:10
structural [1] 347:24
studies [1] 284:20
study [9] 285:17 295:17 296:19 299:24 300:1 400:18 460:11 464: 20 465:4
stuff [1] 416:3
subject [7] 271:1 272:1,8,14 372:3, 3 373:23
submission [3] 277:18 279:19 374:2
submit [1] 393:12
submitted [3] 325:14 327:15 393: 8
subscribe [2] 378:20 463:20
subscriber [6] 353:21 359:23 435: 4 445:5,8 457:15
subscribers [40] 273:8 330:19,25 342:22 353:24 354:3 379:1 380: 17 384:16 385:6,13,17,24 386:4 387:14,15 388:12 406:9 432:12 433:16 434:21 435:16,18,23 436: 3 443:8 445:13,20,21,24 446:15 450:7,11 452:20 458:15 462:4 471:15,21 487:13,20
subscribership [5] 273:5 358:22 463:10,11,21
subscription [1] 287:2
subsequent [1] 386:21
subset [2] 309:16,16
subsets [1] 362:9
substituted [1] 429:16
successfully [1] 272:5
Sue [2] 468:15,18
sufficient [1] 393:9
suggest [4] 313:24 340:9 413:25 480:14
suggests [3] 315:3 333:12 343:18
Suite [1] 268:22
sum [2] 410:20 446:9
summarize [1] 370:7
summarizing [1] 291:9
summary [1] 333:12
summer [1] 282:13
summing [1] 413:9
superior [2] 302:24 303:11
supervised [1] 376:8
supplant [2] 422:4 423:11
supplanting [1] 472:17
supplied [3] 290:18 291:1 415:24
Supplier [2] 440:2,9
Suppliers [14] 268:9 375:2,8 377: 22 382:18 407:13 408:4,16 410:9 441:5,6 478:21,22 479:2
supplying [1] 289:20
support [1] 283:2
supported [2] 310:20 312:5
supporting [1] 376:9
Suppose [2] 424:17,21
supposed [3] 440:3 482:4,7

Supreme [1] 378:10
surcharge [3] 456:4 457:10 482:14
surplusage [2] 275:4 277:8
surprise [3] 320:12 340:20 364:15
surprised [1] 400:9
survey [5] 343:15,16 466:19 474:13,20
surveyed [1] 422:21
surveys [2] 284:18 474:21
suspect [1] 348:22
Sustained [9] 328:6 331:18 401:13 408:25 417:8 431:19 447:20 449:1 469:6
SUZANNE [1] 267:11
SVP [2] 282:21 283:6
swaths [1] 477:18
sweep [2] 297:4 311:21
sweeps [10] 298:15 327:14 362:24 363:13 384:2 428:4 429:25 430:1,5,14
switching [1] 302:13
sworn [2] 281:16 369:8
syndicated [3] 291:2 312:4 320:16
system [39] 273:9 286:13 322:23 323:21,24 324:6 342:12,13 343:1,2 348:12 360:5,11 367:5,13 380:10,10 406:12,12 432:10 443:24 445:14,15,16 453:5 454:2,2 456:5,6 457:11,11 458:14 461:25 463:21 468:8,11,14 469:11,13
systematic [4] 302:11 305:7 361:16,22
systematically [1] 362:3
systems [31] 272:3 283:19 286:1 287:1,6 310:19 312:7 323:16 342:20,21 358:23,23 360:8,15 367:15 378:20,20,21,22 387:24 394:21,22 406:4,14,15 454:19,20 457:12 461:25 482:17,17

T

table [26] 326:2 327:15 376:13 377:13 389:5,9,12 390:8,11 391:11,13,15 392:10,13,14 410:13,19,20 411:19 412:7,9,17,19 413:14,14 414:6
tables [1] 414:18
tabulations [1] 283:16
talked [3] 350:23 385:18 469:13
talks [1] 483:5
tantamount [1] 479:16
target [1] 315:22
targeting [1] 294:11
task [2] 378:5 455:17
tasks [1] 355:7
taught [1] 373:6
teaching [1] 372:24
team [22] 484:13,13,21,22 485:6,7,12,12,25,25 486:6,6,14,14 487:11,11,16,17,23,23 488:5,5

technique [1] 384:11
telephone [1] 304:25
television [13] 271:20 286:17 287:20 290:7 301:1 320:22 323:12 353:5 357:22,25 364:1,9 441:14
tells [1] 475:13
temporally [1] 381:6
ten [2] 310:16 322:16
ten-minute [1] 453:11
tend [1] 450:1
tended [1] 302:14
tends [9] 359:23 406:9 444:13,17,18 446:23 447:5,24 477:15
tentative [1] 271:5
tenured [1] 373:4
term [3] 303:17,18 469:16
terms [46] 273:5 279:2 284:9 296:14 303:5 304:23 305:1 309:21 310:21 313:11 320:19 321:13 323:2 328:14 334:13 341:4 345:12 350:20,23 352:7,7 354:3 355:12,13 356:2,21 358:18 359:1,15 363:6 364:8 372:19 375:9 388:10 389:16 390:5 392:5 395:15,20 401:21 406:11 411:6,21 438:15 458:9 471:25
testified [20] 281:17 287:7 325:8,10 326:19 345:2 354:23 355:1 363:17 369:9 373:8 397:4 402:19,23 409:24 421:16 458:24 465:22 476:10 480:13
testifies [2] 273:1 274:22
testify [1] 289:16
testifying [6] 272:13 283:1 288:21 289:12 328:13 417:18
testimonies [1] 329:19
testimony [97] 270:9,15,22 271:11 272:11,17 274:2,9,14,24 275:1,2,12,22 276:1,12 277:6,13,16 288:9,14,15 291:8,20,21,25 292:6 305:24 315:6 325:14 326:4 329:11,23 330:16 334:12 335:20 352:12 360:21 365:4,25 366:2 375:23 376:17 378:19 382:25 384:5 391:12 392:10 393:24,25 394:1,2,10,25,25 395:17,18 397:21,25 398:14 399:1,1 401:8,10 402:6 409:15 424:13 432:17 433:19 446:12 452:15,17 453:20 454:17 458:19,20,23,25 459:1,10 461:18 465:25 466:21,24 467:1,10,12 468:9,10,20 469:1,4 472:11 476:5 478:4 481:2 483:16
Thanks [1] 368:2
themselves [5] 297:7 304:4 318:25 404:14 439:22
Theoretically [2] 314:9 404:1
there's [39] 277:8 279:10,24 286:16,19 293:20 294:12,13,13,20 295:14 297:16 304:2 313:20,25 314:1 316:3 318:13 319:3 321:2,19 322:

3 343:23 372:20 403:15 418:20 419:2 420:2 427:14 428:24 430:8 440:8 441:15 450:15 451:7,8,9 452:1 454:18
thereafter [1] 271:23
therefore [19] 273:9 274:12 314:22 359:7,12 385:13 386:3 388:25 396:15 398:13 406:24 407:12 428:14 435:11 436:4 446:18 450:3 457:18 463:24
thinks [1] 458:8
third [4] 311:16 335:9 383:7 421:2
though [16] 270:11 274:21 284:13 317:23 350:11,15,17 362:24 402:23 423:16 427:19 430:18,22 439:23 455:8 475:2
thoughts [2] 280:11 489:6
thousand [4] 307:11 309:13,14 321:25
thousands [1] 439:18
three [19] 290:17,18 292:19 366:20 382:25 413:9 414:2 421:3 423:5 425:2 435:6 437:14,16 441:15 474:24 475:1,4,12 481:14
three-party [1] 333:18
threshold [3] 313:18,19 314:23
throughout [3] 302:21 390:16 451:23
throw [5] 316:3 335:24 338:19 424:11,22
throwing [1] 316:12
thumb [1] 352:19
time-consuming [2] 311:12,13
timely [2] 311:8,11
timing [2] 348:13 363:9
title [7] 291:19 381:14,15,23 386:11 389:17,19
titled [1] 390:11
titles [1] 389:17
Toby [1] 272:10
today [17] 270:9 279:4,8,21,25 280:3 297:25 325:21 343:10 346:18 347:15 368:1 404:3 409:15 456:19 467:13 488:13
together [9] 314:15 317:1 318:6 319:13 324:8 340:18 427:11 462:1,2
took [3] 308:16,25 325:16
top [5] 283:9 332:25 351:2 365:14 427:2
Topeka [1] 486:15
toss [1] 316:24
total [25] 324:6 337:17 387:23 391:20 394:19,20 400:4 405:20,25 406:5 411:14,22,24 412:13,20,25 426:24 431:1 432:10 443:23 444:8 445:17 446:4,4,5
touching [1] 401:7
tough [1] 286:17
track [3] 373:4 406:9 426:4
tracks [1] 445:12

tractable [1] 422:13
transactions [1] 457:10
transcript [2] 346:6 493:4
transmissions [3] 342:5 406:23 433:17
transmit [2] 456:3 459:4
transmitted [2] 411:7 446:24
transpired [1] 278:10
transportation [1] 372:11
Trautman [2] 466:11,14
travel [1] 280:15
treat [7] 318:18 428:21,22 429:5,11 446:23 447:5
treatment [2] 447:25 448:23
trial [3] 281:9 324:23 453:13
Tribune [8] 379:24,25 381:5 439:2,24 443:16 478:13 480:7
Tribune/Gracenote [2] 381:2 438:23
tried [3] 315:11 324:4 422:10
true [13] 292:6 296:12 321:4 359:21 362:22 376:25 414:19 418:4 430:22 474:14,20 480:7 493:3
try [12] 289:14 306:12 346:10 355:7 356:6 409:20 424:16 447:21 449:11 453:22 455:17 456:19
trying [23] 286:18 289:10 304:22 315:9,13 322:4 329:20 337:4,20 338:17 339:6 355:13 358:18 381:6 403:23 424:1 434:13,23 442:1 446:6 473:15,21 484:6
Tuesday [1] 448:16
tuned [3] 303:23 304:10,17
tuning [2] 301:7 303:22
turn [11] 291:16 322:9 327:7 406:18 410:12 412:6,17 441:9 476:4 478:1,9
Turning [1] 354:7
turns [2] 280:17 463:10
TV [2] 357:23 358:19
twisted [1] 306:12
two [30] 275:18 284:12 291:14 292:20 303:20 307:2,4,23 316:3 320:15 324:21 363:4 372:6 375:9 380:10 387:24 388:14,22 409:18 412:9 425:2 448:6 449:12,21 450:2,10 452:3 467:7 485:1 486:6
two-minute [1] 324:19
two-step [1] 294:14
two-thirds [1] 460:20
twofold [2] 385:9 403:14
type [35] 284:5 285:23 292:24 300:10 304:1 311:17 380:14 381:16 384:11 387:18 400:3 420:14 430:7,16 432:9 436:12 437:22 438:21,24 439:16 442:8 451:2,4,21 461:7 471:11,23 472:1,3 476:16,18 479:10,15,18 481:23
types [32] 283:12,25 285:18 290:18,18 292:19 302:5 303:20 317:3 344:8 372:8 388:22 436:16,20,20,

23,23 **437**:14,16,18,21,24 **440**:24 **441**:2,4 **451**:5 **478**:10,14,20,23 **479**:3,11
typical [1] **482**:9

U

U.S [6] **305**:14,19 **322**:2 **361**:20 **408**:12 **425**:5
UBN [3] **442**:5,5,7
ultimately [11] **274**:14,17 **283**:16 **286**:23 **356**:25 **384**:6 **407**:5 **414**:6 **425**:17 **454**:22 **461**:22
umbrella [1] **285**:6
unable [1] **473**:7
unclear [3] **288**:19 **336**:11 **345**:18
uncommon [2] **385**:11 **420**:17
under [8] **279**:17 **283**:3 **285**:5 **353**: 18 **365**:7 **449**:14 **479**:21 **480**:10
underlined [1] **402**:4
underscores [1] **404**:11
understand [24] **286**:18 **289**:7 **342**:8 **343**:10 **349**:23 **356**:14,15 **358**:18 **402**:23 **406**:16 **416**:5 **431**: 12,21,21 **435**:22 **445**:18 **447**:15 **453**:21 **455**:12 **472**:10,10 **474**:10 **481**:24 **485**:7
understandable [1] **344**:1
understanding [17] **288**:4 **295**:7 **321**:5 **382**:17 **393**:5,15 **396**:21 **402**:24 **431**:24 **440**:10 **443**:4 **451**: 9 **453**:24 **463**:3 **482**:1,6 **485**:22
understood [1] **446**:3
undertake [1] **379**:9
undertook [3] **298**:20 **308**:9 **387**:3
unexpected [1] **364**:7
unfortunately [1] **460**:22
unique [11] **389**:14,17,17,22 **390**:2, 15,23 **410**:22 **411**:12 **442**:21 **476**: 18
unit [1] **305**:19
UNITED [2] **267**:1 **311**:22
universe [1] **321**:2
University [4] **370**:10,11 **373**:5,6
unless [1] **464**:2
unlisted [2] **294**:22 **295**:21
unmeasured [1] **476**:14
unregulated [2] **455**:18 **456**:11
until [5] **275**:14 **280**:10 **282**:12 **316**: 1 **490**:1
unusual [3] **403**:21 **450**:24 **451**:7
up [58] **301**:21 **306**:17,20 **307**:2,13 **309**:4,21 **310**:10 **311**:23 **316**:15 **317**:13 **319**:1 **322**:1,9,17 **324**:9 **326**:2 **331**:12 **333**:1 **334**:23 **338**: 10,11 **341**:1,18,22 **357**:16,17 **358**: 8 **359**:1,3,8,23 **360**:3 **379**:17 **388**: 21 **407**:9 **410**:20 **411**:24 **412**:9,11 **413**:9,13 **422**:19 **425**:4,10 **435**:1 **445**:6 **446**:9 **449**:6 **457**:2 **459**:21 **470**:16 **474**:15 **485**:15 **488**:13 **489**: 7,19,22

updated [3] **398**:23,23 **400**:13
UPN [2] **442**:11,12
upper [4] **334**:24,25 **335**:1,2
upside [2] **460**:25 **461**:1
urban [2] **306**:5,5
Urbana-Champaign [1] **373**:5
usage [3] **358**:5,5 **364**:9
useful [1] **460**:11
user [1] **288**:16
using [28] **297**:15 **304**:24 **314**:14 **317**:25 **322**:18 **344**:19 **346**:12 **352**: 19 **357**:20 **360**:11 **364**:10 **399**:8 **403**:13 **411**:4 **414**:14 **426**:23 **427**: 18,25 **432**:4 **435**:14 **436**:13 **438**:1 **441**:2 **443**:5 **444**:7 **476**:22 **477**:1 **481**:6
utilized [1] **432**:13
utilizing [1] **428**:3

V

vacated [5] **332**:18 **333**:4,5,9,20
vacation [2] **369**:22 **488**:22
vague [5] **401**:12 **408**:24 **409**:17 **447**:10 **448**:6
validity [1] **337**:18
valuable [6] **392**:6 **439**:1 **458**:13 **463**:23,24 **464**:6
valuation [3] **271**:19 **272**:22 **274**:1
valuations [1] **272**:21
value [57] **273**:10,20,24 **274**:5 **319**: 9,9 **322**:7,12,13 **331**:8 **378**:7,11,14 **379**:3,5 **408**:10 **432**:2 **446**:18 **449**: 4,7,14 **452**:19 **453**:5,22,25 **454**:1,4, 8,9,12,15 **455**:17,18,20,23,24 **457**: 5,19,21 **458**:1,3,4,9 **461**:23 **462**:8 **463**:8,11,13,15,16 **464**:3,6 **471**:13 **473**:6 **481**:23,25 **482**:2
valued [2] **457**:15 **462**:3
values [7] **436**:22 **438**:21 **439**:3,5 **441**:2 **458**:6 **482**:19
valuing [1] **272**:2
variable [1] **387**:22
variables [4] **384**:5 **394**:17 **425**:21 **444**:8
varied [1] **392**:17
varies [1] **353**:8
variety [2] **372**:10 **440**:8
various [9] **325**:16 **354**:4 **379**:13 **380**:1 **433**:16,17 **436**:22 **458**:9 **460**:3
vary [2] **331**:9 **350**:22
vast [1] **479**:8
veracity [2] **323**:9 **330**:14
verify [2] **342**:9 **424**:1
vernacular [1] **315**:2
verse [1] **271**:8
version [1] **373**:17
versions [1] **367**:12
versus [19] **304**:5 **313**:10 **319**:20 **341**:13 **395**:2,17 **451**:6 **484**:13,21 **485**:7,12,25 **486**:6,14,25 **487**:11,

17,23 **488**:5
via [5] **299**:17 **309**:2 **386**:21 **430**:8 **458**:12
vice [1] **282**:21
view [15] **293**:15 **322**:25 **378**:21 **379**:2 **399**:4 **401**:8,21 **428**:2 **430**: 19 **431**:12 **449**:23 **450**:12,14 **454**: 11 **459**:4
viewed [6] **293**:11 **299**:11 **324**:1 **359**:4 **487**:17,24
viewer [1] **354**:13
viewers [4] **438**:18 **443**:9,9 **471**:24
viewership [34] **330**:25 **358**:1 **414**: 6,7,9 **421**:17 **432**:2,5,6 **435**:2,20, 21,25 **436**:1,2 **443**:17 **445**:1 **452**: 22 **453**:1,2,3 **458**:12,16 **461**:21 **462**:5,14,18 **463**:9,12,15,16,19,23 **473**:14
viewing [250] **273**:6 **293**:13 **299**:4, 13,15,21 **302**:24 **309**:4,6 **312**:14, 15,16,20,22 **313**:5,8,16,17,18,19, 25 **314**:1,8 **316**:20 **317**:17 **318**:18, 18,19 **319**:4,18 **320**:10 **321**:10,11, 17,18,24 **322**:9,10,12,13,24 **323**:8, 24 **324**:4,14 **328**:1,15 **331**:24 **334**: 6,8 **335**:13,21 **338**:4,5,9 **339**:1,21 **340**:11,16,22,23 **341**:7,15,18,24 **343**:8,9,14,17,23 **344**:19 **347**:16 **350**:15,17,21 **351**:6,7,8,14,20,23, 25 **352**:13 **353**:7,9,10,23 **354**:21 **355**:8 **357**:9,18,23 **358**:3,4,6,8,19, 21 **359**:10,11,12,13,25 **376**:16,21 **378**:16 **379**:2,4,7,15,17 **380**:25 **382**:10 **383**:6,11,20 **384**:6,7 **385**: 10,15 **386**:1 **387**:11,14,16,21 **388**: 5,11,18,22,24 **392**:14,17,19 **393**: 19 **394**:7,14,20 **395**:6,10,14,21 **396**:6 **397**:18,21,22 **398**:12,22 **399**:7,9,15,17 **400**:1 **403**:17,23 **404**:24 **406**:7 **413**:21 **418**:5,10,15, 21 **419**:3,11,15 **420**:9,12,16,21 **421**:9,12,18,24 **422**:1,8 **426**:21 **427**:5,10,12,13 **428**:8,13,15,20,23, 25 **429**:3,4 **430**:2,4,14,24,25 **431**: 15 **435**:10,11 **438**:8 **439**:17,19,20 **441**:24 **444**:6,10,14,16,19,22,24 **445**:2 **446**:8,17 **450**:1,4,17,18 **452**: 2,6,9,10,11 **457**:16,18 **462**:13,20 **468**:22 **469**:21,22,23 **470**:2,3,20 **471**:3 **472**:13,18,18,19 **473**:16,17, 19 **480**:1,4,20,23 **481**:6 **486**:8 **487**: 2,3,3,5,6
viewings [1] **426**:22
views [4] **465**:9 **466**:1 **468**:5,19
virtually [1] **287**:10
voir [4] **271**:21 **287**:21,24 **491**:5
volition [1] **415**:2
VOLUME [6] **267**:22 **375**:18 **391**:7, 20 **392**:1 **413**:25
volume-based [1] **413**:22

W

wait [3] **275**:14 **315**:23 **316**:1
waiting [1] **465**:6
waivers [1] **364**:13
wanted [9] **279**:16 **285**:18 **329**:4 **365**:3 **366**:15 **385**:12 **386**:2 **475**: 24 **483**:19
wants [3] **354**:19 **464**:1 **486**:12
WARLEY [1] **269**:4
warranted [1] **344**:4
Washington [5] **267**:3,18 **268**:16, 23 **269**:8
waste [1] **307**:1
watch [5] **323**:3,17 **359**:7 **486**:2,13
watched [1] **469**:17
watching [8] **286**:23 **297**:16 **314**: 18 **315**:4,7 **485**:10 **486**:16 **488**:5
water [1] **418**:7
way [36] **274**:18 **293**:12 **295**:4 **304**: 22 **306**:6 **307**:1 **312**:23 **313**:20,23 **314**:16 **315**:13 **318**:7 **322**:21 **355**: 3 **361**:16,17,22 **362**:11 **389**:22 **395**:15 **401**:11 **403**:14 **405**:3 **415**: 20 **416**:20 **425**:10 **426**:11 **438**:10 **455**:6,23 **456**:15 **460**:20 **474**:3,4 **483**:7 **485**:9
ways [3] **284**:23 **318**:13 **438**:9
Weakest [1] **408**:9
website [1] **372**:14
Wednesday [1] **448**:15
week [2] **303**:1 **383**:24
week's [1] **317**:10
weeks [15] **384**:2 **428**:5,9,10,11,12, 13,14,14 **429**:2,25 **430**:1,5,12,15
weight [3] **274**:13 **275**:8 **433**:12
WGN [7] **382**:6 **388**:9,10 **437**:8,8, 10 **478**:7
WGNA [1] **382**:6
whatever [4] **280**:17 **338**:5 **434**:24 **480**:15
whatsoever [1] **450**:15
whenever [1] **278**:24
Whereas [2] **341**:20 **389**:24
Whereupon [4] **281**:14 **368**:3 **369**: 6 **490**:11
whether [22] **286**:11 **296**:2,11 **299**: 18 **314**:24 **323**:21 **355**:5,6 **367**:4 **381**:24 **382**:16 **387**:19 **400**:13 **408**: 18,21 **409**:6,7 **415**:25 **416**:1 **434**:8 **451**:21 **473**:23
who's [2] **304**:11 **319**:8
whole [2] **357**:12 **461**:18
wholeheartedly [1] **452**:5
whom [2] **333**:4 **454**:16
wide [4] **283**:17,24,25 **285**:25
will [77] **270**:6,8 **274**:17,21 **278**:10, 19 **280**:16,25 **281**:4 **288**:8,13,15, 21 **289**:18 **290**:2 **294**:2 **311**:3 **319**: 4 **330**:21 **331**:9 **338**:3,10 **340**:13 **346**:10 **353**:9 **359**:13 **362**:22,23,

23 367:25 368:1 379:1 387:10
389:21 407:2 409:22 422:24 423:
3,5 430:1 435:25 436:2 437:9 438:
4,7 444:11,18 449:13 451:16 453:
10 456:2 457:8,12,13 458:13 460:
7 462:12 464:6,6 470:23,23 471:
10,13,17 473:2 474:4,25 478:9
480:10 481:21 488:17 489:5,19,
23 490:4,5,9
willing [4] 454:18,18 482:20,21
Winthrop [1] 269:6
wish [2] 395:13 429:18
withdraw [1] 473:2
withdrawn [4] 278:12,19,21 492:2
within [34] 270:21 279:22 283:5
293:3,8,9,14,15 301:1,8 306:17
312:25 313:10 319:3 323:24 341:
25 348:18 351:9,23,25 352:5 359:
17 362:2,9 375:1,7 377:21 413:1
440:9,16 441:4,5 478:20 479:9
without [11] 285:13 286:18 313:22
331:8 356:16 357:2 358:17 367:
18 399:12 415:17 477:13
witness [49] 271:25 272:10 277:14
281:11 287:14 294:12 296:6 306:
7,10 309:18 311:3,13 314:3 315:9
316:1 318:22 321:22 323:14 329:
3,6 332:7,12 339:14 351:19 366:
20 377:15 403:11 404:18 417:25
418:2 424:7,14 425:15 426:12
434:5,25 451:5 463:18 464:5,12
465:6 472:24 473:6 475:6,11 483:
17 488:9,11 491:2
witness' [2] 274:24 469:1
witnesses [6] 276:12 279:7,24
280:3 465:21 488:14
wonder [2] 453:6 488:25
wondered [1] 434:10
word [7] 314:20 315:2 419:11 434:
13 447:14 449:4 469:15
words [9] 273:17 330:7 354:11
426:21 452:25 461:3 465:3 473:
22 486:10
work [18] 282:17 284:4 285:11,21
286:7,15 291:9 318:14 324:13
346:11 366:14 370:13 371:22 376:
9 389:2 402:10 468:19 479:1
worked [6] 282:10,11,20 283:9
436:17 466:16
works [3] 362:21 380:21 437:25
world [1] 485:14
Worldwide [1] 288:2
worth [4] 317:10 404:4,5 484:22
wrapping [1] 488:13
written [23] 270:21 271:11 272:17
275:11,22 276:16 278:8 291:8,21
325:15,16 326:6 365:4,25 366:2
374:4 375:12,25 378:18 458:23,
25 476:4 483:16
WSG [1] 413:17
WTPS [1] 335:16

Y

year [23] 303:2 376:15,20 383:9,24
388:6 389:16 390:7,16 391:23
392:24 394:13,18 405:11,14 406:
4 428:10,11,12 444:4,7 446:6 472:
9
year-to-year [1] 444:5
years [25] 282:12 287:17 296:24
300:7 310:9,17 312:9 334:12 348:
7 355:11,17 370:18 384:9,22 386:
1 394:17 404:15 407:4 429:23
439:10,11 444:12,22 445:6 479:
24
yesterday [6] 270:14,20 271:2,4,6,
17 272:4 488:18
York [6] 306:20,23 307:8,22,24
308:2
yourself [3] 288:5 329:1 485:22

Z

zero [110] 312:14,15,16,19,19,20
313:16,18,25 314:24 316:21 317:
24 318:18,18 319:1,10,12,17 320:
3,10,22 323:8,24 328:1,15 331:24
334:6,8 335:12,20 336:3,6 337:7,
9 338:6,9 339:1,3,21 341:7,15
343:8,8,14 350:14,17,21 351:5,6,7,
8,13,22 352:4,13,25 353:7,9,10
354:21 355:8 357:9 358:3,3,7,12
359:24 418:5,10,15 419:11 420:9,
21 421:9,13,17,24 422:8 423:3,17
426:20,22 428:8,9,11,13,14,15,21
429:6,16 431:7 450:17,21 452:2
469:22,22,24 470:2,7,14,15,15,17,
25 471:3 472:13,17 473:18 475:5
zeros [29] 318:25 319:16 320:1,3,7
321:12,16 322:17 336:3,6 351:9,
16 353:16 422:4 425:1 429:10,11,
13,14,15 430:3 431:3,5,10,13 470:
4 474:7 475:7,12
zone [1] 477:19